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AUTHOR Medrich, Elliott A.
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ABSTRACT

Issues of daily life experience from a child's perspective were examined in the Spring 1976 as the Children's Time Study interviewed 764 preadolescents (aged 11-12) from Oakland, California and their mothers. The interviewers explored children's use of time outside the school by focusing on five domains of time use: (1) parent-child interactions; (2) television; (3) participation in organized activities; (4) household chores, responsibilities and obligations outside the home; and (5) children's activities outside the home. Representing 22 public schools, respondents were predominantly non-white (457 Blacks, 35 Mexican Americans, 70 Orientals) well distributed along the low, middle and high socioeconomic status stratums, and clearly resembled the public school population found in most big city schools today. To date, the data collection, editing, coding, cleaning of the basic data, and a followup verification study have been completed. In addition to citing past research and other background information concerning children's use of time, this document describes the research strategy and methodology utilized in the study, the analytical framework, the study setting, sample population characteristics, sample design and objectives, field work methods, and preliminary field results. (DS)

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THE SERIOUS BUSINESS OF GROWING UP:

A STUDY OF CHILDREN'S LIVES OUTSIDE OF SCHOOL

By

Elliott A. Medrich

Children's Time Study
School of Law (Boalt Hall)
University of California
Berkeley, California 94720

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The Children's Time Study

The Children's Time Study was organized in 1974 to examine issues of daily life experience from a child's perspective. Supported by grants from the Ford Foundation and the Carnegie Corporation of New York, in the spring of 1976 the Time Study interviewed 764 preadolescents (aged 11 and 12) from Oakland, California, and their mothers. The interviews explored children's use of time outside of school focusing on five domains of time use: (1) parent-child interactions; (2) television; (3) participation in organized activities; (4) household chores, responsibilities and obligations outside the home; and (5) children's activities outside the home. Four manuscripts, the products of the Time Study in Oaklnad, are currently under way: one describing the social factors underlying children's time use patterns; a second factors underlying children's time use patterns; a second examining children's use of public sector services outside of school; and two analyzing the relationship between school achievement and out-of-school life.

Through August 1979, the Children's Time Study is supported by a grant from the National Institute of Education.

I

CHILDREN'S USE OF TIME: AN EXPRESSION OF LIFE CIRCUMSTANCE

We are interested in the ways that family and neighborhood life are reflected in the everyday behavior of children. The linkage between life circumstance and behavior can, we think, help us better understand prospects for the rising generation.

Our focus is on the way children use time. The use of time is a proxy--an indicator of what matters to children and to their parents. Equally important, a child's use of time may enable us to identify aspects of the experience of childhood that will affect the quality of adult life.

In particular we are concerned with the use of time outside of school. Out of school one sees evidence of the extraordinarily different circumstances in which children are raised. Here the forces of family and neighborhood sort children and set them off in fundamentally different directions. The former provides the crucial support system, playing a strategic role in socializing, inculcating values, defining expectations. The latter provides a context, a spatial configuration setting physical limits within which children spend most of their time.

Children between the ages of six and eighteen spend something under one-fifth of their waking hours each year in school. In research on the subject of equal educational opportunity, James Coleman, David Armor and others have pointed out that life outside of school--the bulk of each day, week, month and year--provides most of the experiences that

will ultimately determine the kind of adult a child will turn out to be. A child's use of time outside of school, then, is part of the serious business of growing up. Jonathan Kozol (1975) reflecting on skipping classes in high school describes the hours away: "I remember those times. . . . All of the hours that mattered most to us, in terms of passion, high stakes, daydreams and ideals of justice; all of those hours were time 'sneaked-in', 'unlicensed', unpermitted.' We got no credit hours for them." (p. xii)

Younger children, certainly those of elementary school age are rather closely supervised by their parents. Their use of time is subject to innumerable externally imposed constraints, hence a study of out of school life is in part an examination of parent-child interactions and interdependencies. A child may exercise a greater or lesser degree of freedom, may be more or less strictly controlled by parents, and may have greater or fewer out of school opportunities and alternatives from which to choose. Even so, out of school time is bounded. For that reason it is hard to view a child's use of time as though it represented decisions and tradeoffs characteristic of classical economic man who allocates scarce resources, including time, such that his personal utility function in maximized (Becker, Linder). Whether or not such a chrono-rational man (Rubin) exists matters very little to us here, for children are a dependent class, and there is certainly no theory of time budgeting that takes account of those with subordinate status.

We do not feel that we can call this a study of children's "free time," for we are not certain if it is free at all (Neulinger, Degrazia, Kaplan).

For adults as well as children the notion of free time may be more illusion than fact. Hence by suggesting that children have very little "free" time, we are simply emphasizing the fact that children are formally more dependent than adults. Similarly we are not sure whether out of school time is "discretionary." Children have some degree of choice, but their choices are terribly constrained for reasons that will become clear in the following sections. Nor can this be characterized as a study of "leisure" time, for what we have captured is not necessarily leisure at all.

The use of time represents the playing out of an elaborate set of family level decisions which discourage or prohibit certain behaviors and encourage or require others. How children use time tells us something about families and parents, how they view the world, their values, priorities, their aspirations for their children and their sense of efficacy--the kind of impact they think they can have on their child's development. Taken together these qualities of the child's use of time become one way of describing the experience of growing up in different family settings. All of this takes place in some physical setting--a setting that may or may not be the result of a residential location choice (i.e. many people live not where they want to but where they can afford to or where they are allowed to), which in turn, directly influences a child's out of school experiences.

TIME AND DEPENDENT POPULATIONS

In some ways neither children nor adults are free to choose how they will use time. To a greater or lesser degree our lives are constrained--

by our economic situation and class position, by our skills and responsibilities, by the location of our residence, by the pressure of time, to name just a few factors. Chapin views the use of time as the playing out "of a complex and variable mix of incentives and constraints serving to mediate choice, often functioning in differentially lagged combinations with some activities directly traceable to positive choices, and some attributable to negative choices in the sense that constraints overshadow opportunities for choice." (1974, p. 9) He goes on to describe some of the factors which further act to facilitate or constrain an individual's "activity pattern." ". . . Propensity to engage in an activity is determined by a set of . . . factors (motivations and thoughtways predisposing action) and a set of constraining factors (roles and personal characteristics preconditioning action). . . . The opportunity to engage in an activity is seen to be a function of the existence of a favorable situation for the activity to occur. In other words, it is a function of access to the requisite facilities or services in sufficient quantity and in locations sufficiently convenient to permit the level of use indicated by the propensity to participate." (1974, p. 33-4) Although many factors influencing the use of time operate on adults and children alike, we are especially interested in the characteristics of childhood as a state of being which may act to constrain a child's use of time in unique ways.

Regardless of how we define the nature of a child's dependent status, one thing is clear: emancipation comes only with age. This suggests that dependency can in part be understood by looking at the structure of the family, the way it is organized and the distribution of power and resources within it.

Parental authority acts to constrain behavior (you must do x, you cannot do y), control access to resources and define a child's intra-familial roles. A child's sense of self, view of the world and feelings about what is and is not important is largely a product of this relationship. What a parent knows and values will certainly influence what the child knows and values.

One could argue that an adult's use of time is constrained in equally powerful ways--the baggage of class, rigid role expectations, minimal control over productive powers and consumption alternatives. But the argument does not work very well for many of the constraints imposed upon adults are the result of complex, structural, social forces. Within the family, on the other hand, parents enjoy the perquisites of their role. Vis a vis children this means that what a parent believes is important--childrearing imperatives--necessarily becomes important, whether the child likes it or not.

These factors serve to bound a child's use of time quite formally. While adults face constraints in the use of time that reflect everything from their own personality and predilections to the norms of social class position, one gets less of a sense of domination. But children use time within a particular constellation of values that define behavioral expectations.

Family life is not just a unique expression of values and priorities, it also reflects a set of childrearing norms closely tied to social class position. We expect then, that a child's use of time is in part a product of the normative, class sorting environment in which children are raised.

LIFE OUTSIDE OF SCHOOL: THE SOCIAL CLASS DIMENSION

The texture of life outside of school is partly a function of the way children are raised--approaches to childrearing and socialization.

It is typically argued that family childrearing practices are related to social class position. (Bronfenbrenner, Miller/Swanson, Kohn, etc.). There are also a variety of extra-familial forces at work. Television, for instance, has become an important socializing force in its own right. Schooling has placed some socializing responsibilities squarely in the public domain. Despite the intrusions, however, the socialization of children may be viewed largely as a mix of family level attributes which make each family unique from every other and social class attributes which account for many of the differences in childrearing styles among families.

The way children use time may be viewed as one expression of child-rearing norms and socialization experiences. Complex messages pass between parent and child, among peers, and among families which are reflected in what children do, what they can and what they want to do. Perhaps more than any other characteristic of families and children, social class origin is fundamental to the use of time equation. Since the use of time reflects socialization and development priorities, significantly different behaviors are likely to be in evidence.

The use of out of school time is partially a function of the kind of resource a family believes it to be. That is, out of school time is differentially valued--it does not have the same meaning for all. There is a substantial literature on the subject of children, leisure and social class. Important findings are reviewed briefly below.

Studies of children, leisure and social class tend to fall into three categories: 1) those concerned with the correlates of participation (i.e. propensity to participate in activities usually described as "developmental" and "educational"); 2) those examining exposure of children to different types of experiences outside of school (i.e. range of inputs from a range of sources); and 3) those describing the effects of maturation on choice and leisure activity preferences. Taken together, these studies have confirmed the close correlation between social class and leisure activity styles, although they generally fail to tie findings to other literatures. For instance, they do not explore how these differences are related to family values or how they affect a child's life chances--i.e. what the differences mean.

Evidence of the impact of social class is clear. As early as the Middletown studies, the Lynds (1929) noted that by high school the use of leisure time was clearly class related. "Here (by high school) the social sifting devices of their elders--money, clothes, personal attractiveness . . . are all for the first time set going with a population as yet largely undifferentiated save as regards their business class and working class parents." (p. 211) Other studies suggest that this social sifting actually

begins much earlier. Hollingshed's classic study of Elmtown's youth (1949) described a distinct class bias in the drawing power of different types of activities--a phenomenon found again and again in Post World War II research.

Havighurst and his colleagues (MacDonald, McGuire, Havighurst, 1949) found a systematic relationship between family social class position and children's leisure behavior. In a study of 10-12 year olds, he confirmed that children from different social class backgrounds engage in leisure activities which are quantitatively and qualitatively different. Social class was viewed as a mediating force shaping a child's view of what was and was not desirable leisure time behavior. This supplemented Stendler's (1949) finding that children's activities tended to be conditioned by their parents' social class position and that by age 12 there was surprisingly little class interaction among children in their leisure time outside of school (and fewer and fewer interests held in common).

An aspect of the leisure and class literature that is especially interesting focuses on children's exposure to different kinds of opportunities. Passow (1963) for example, found that middle class families intentionally intervene in their children's out of school lives to ensure a continuing flow of "new" experiences and cognitive inputs. Wortis (1963) remarks that this "purposive structuring" is less common in non-middle class families. This is not unlike Havighurst's finding (1962) that poor children often suffer various forms of stimulus deprivation as they grow up. Long and Henderson ( ) argue that different degrees of parent involvement in children's use of time may be a crucial variable. Their work concluues that class tends to determine the extent to which parents choose to organize their children's use of time.

Much of the leisure literature focuses on children's participation in organized programs that seem to have a clear "skill building" component. In this context, as McEntire (1952), Reissman (1954), White (1955), the University of Michigan study for the Boy Scouts of America (1956) and so many others have pointed out, by their very nature these kinds of activities appeal primarily to middle class parents and children. Hence it is not surprising to find significant correlations between participation (as defined above) and social class. It must be recognized, however, that most out of school time is not spent in organized, structured activities. Hence these studies may do little more than confirm what we already know about our society--that the propensity to participate in these activities is fundamentally middle class.

Much of a child's out of school life is a function of family norms which encourage, fail to encourage, reward, or do not reward certain behaviors. It is our intention to focus on this broader normative environment that seems pivotal in determining what children are likely to do when they are not in school.

Even so, we are left with some weighty evidence suggesting that the organization of life outside of school is quite different across classes. Social class may be especially important to the extent that we can locate values and family imperatives that are reflected in how children use time, and which subsequently affect life chances.

SPACE, SOCIAL CLASS AND THE USE OF TIME

In the same way that social class helps account for differences in family childrearing practice, so the distribution of people in space

reflects class-related, structural characteristics of our society.

Where you live counts: it says something about who you are and who your neighbors are. Americans tend to live in relatively homogeneous settings among people very much like themselves. This linkage between space and social class is fundamental to understanding children's use of time.

Neighborhoods, the physical environment close to home, have special meaning to young people. Children have a heavy investment in the neighborhood in which they live, for that is where they spend most of their time (Foley, Abu-Lughod, Suttles). With the exception of the elderly, probably no other group at any stage in the life cycle is as sensitive to the quality of neighborhood life.

Across a number of social class, socio-economic status and life cycle variables, neighborhoods tend to be rather homogeneous. Residents in a given area are likely to share similar demographic profiles. For some decades the relationship between place of residence, social structure and life style has been a topic of special interest to social scientists. In the late 1940's and early 1950's (Shevky/Williams, Shevky/Bell) sociologists began to develop ways of characterizing the demographics of cities along social dimensions. Shevky and his associates, for instance, compared census tracts according to indices of "social rank," "urbanization" and "segregation." —/ Tract scores on each index could be compared and

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—/ Indices were measured by the following variables. Social rank (economic status) by occupation, schooling, dwelling unit rent. Urbanization (family status) by fertility, women at work and percent of single family dwelling units. Segregation by the racial composition of the census tract population.

plotted on a grid. Tracts with similar scores fell into the same "social area." They shared the same "social space." Social space defined a relationship among census tracts not on the basis of location, but social structure. In theory, social areas consist of groups of people with similar backgrounds, living at the same socio-economic levels and sharing similar life styles. By implication these were considered to be persistent patterned relationships that were characteristic of a general set of social phenomena (Bechers, 1960).

Refinements of the social area typology permitted analysts to employ more sophisticated data processing techniques, particularly factor analysis. With new tools, the variables constituting salient dimensions of urban social structure and the explanatory power of particular variables could vary from one community to another (Tryon, 1955).

In this study we assume a strong link between social class and the spatial distribution of the population. We shall, in fact, attempt to describe some of the implications of this kind of homogeneity. To do this we will be looking for linkages between individual level data and aggregate, neighborhood level characteristics of the population we have surveyed.

The relationship between social class and neighborhood has a special impact on children. Neighborhoods do much more than provide a physical setting in which a child grows up, they effectively define a child's social universe. Who they spend their time with, the things that interest them, the things they do, their habits and values, needs and wants are in part a product of that social setting. Living in one place rather than another means that the schools are different, the things that are easy or hard to get to (and to do) are different, the activities and facilities

provided by city agencies are different, the pressure of parents to be "good" at this or not to do that, are all played out in this social-spatial context. Hence, two children growing up five miles apart may be as different and uncomfortable with one another as two children raised in different countries.

The social-spatial context represents an important element of the use of time equation, one which shall be examined in detail in this study. To some degree children are exposed to what are essentially uni-model views of the world. To the extent that children living in proximity come from families that are generally alike, certain behaviors are encouraged, sanctioned and condoned. This, we believe, is reflected in what children do when they are not in school.

PATTERNS OF CONSUMPTION

A child's use of time outside of school represents what economists might call a pattern of consumption. While we commonly study adult consumption patterns by comparing allocations of discretionary resources (income left over after satisfying basic needs), this would be problematic in a child's world. Children have little or no money of their own, certainly very little that they earn independent of their parents. Furthermore, what they do have they tend to spend in fairly similar ways. Hence, a child's spending habits are poor indicators of discretionary resource allocation preferences (McNeal, 1964; Schiele, 1974).

Time, however, is another kind of currency, equally available to all children yet allocated in very different ways. In fact, most of the things

children do are costly in terms of time, not money. Our sense is that time-related consumption patterns provide significant indicators of how children are growing up in America today. These patterns can be analyzed along many dimensions. Five in particular will concern us here.

1. Form. Activities may be classified along a continuum depending on the degree of organization and structure involved.

2. Locus. Activities may take place in private or public settings, at home, near home, or somewhere else.

3. Participants. Activities may be done alone, with peers, with siblings, with parents, etc.

4. Involvement/Initiative. Parents or adults may be initiators, chauffeurs, participants in a child's activities. Or, at the other extreme, activities may be initiated by the child independent of parents or adults.

5. Resource requirements. Activities may cost money or they may be free. They may be costly in terms of time and in terms of skills that must be developed and nurtured to make participation possible.

Taken together the relationships among these factors enable us to describe important differences among children, helping us to understand how consumption patterns are linked to the experience of growing up.

STUDYING THE USE OF TIME*

Studies of the use of time tend to take an "inventory" approach. That is, given twenty-four hours in a day, how much time is devoted to different activities? This approach, which represents one particular tradition and style of time research, utilizes primarily three types of studies:

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*This section is drawn from Victor Rubin, "The Time Budget Research Tradition: Lessons for Planning with Young People." Working Paper, Childhood and Government Project, March 1975.

1. Time Budgets. A protocol on which individuals account for their activities over a specified period of time.

2. Activity Systems Analysis. The integration of time budgets with analyses of movement through space--i.e. not just what people do, but where, how they get there, etc.

3. Qualitative Analysis of Time Allocation. Unstructured interviewing, participant-observation and other modes of field work designed to describe the way particular populations perceive of and use time.

Time studies have been applied to work in many fields (for extensive reviews, see Gutenschwager, Converse). As early as the 1920s, for instance, Soviet planners used time budget data to assist administrators in allocating labor and capital resources (Strumilin, 1924). A followup study in 1959 (Prudensky) became part of a body of literature helping to explain the effects of industrialization on time and activity patterns in Russia (Gutenschwager).

Marketing experts have used time budgets as predictors of how new products will be received. Kranz (1970) notes:

> Because time budgets describe many significant aspects of consumer life, it is often possible to see the place for new products without direct questions. Rather one peers over the buyer's shoulder to see what is needed. With this insight one can proceed to make models or test samples with greater confidence that they relate to a genuine market.

Closely related are media studies which have focussed on time spent watching television, listening to the radio, reading, etc.

Important studies of the effects of industrialization, urbanization and technology on modern life have utilized time budgets methodologies (see in particular Szalai, Converse). Recently Linder (1970) re-examined some of the basic premises of post-industrial life contending that in

this age of technological timesavers, the "leisure class" is more harried than ever before. Others have studied activity systems across classes and cultures, and over time--comparing social outcomes resulting from various kinds of economic change.

There have also been occasional efforts to study the use of time at a national and international level. The Hungarian decennial population census, for instance, contains a time budget survey which is used for analyzing long-term trends in activity patterns and for studying the impact of various public policy decisions (Gutenschwager). The twelve nation "Multi-national Time Budget Research Project" is perhaps the most ambitious example of the census approach (Szalai). A cross-national sample of comparable populations was drawn, and results were used to examine, among other things, the impact of social class, urbanization and technological change on the use of time and the proliferation of television and its effects on modern life. In the U.S. Converse took a nationwide sample of leisure time budgets and summarized findings in the 1973 U.S. Social Indicators Report (O.M.B.).

But the central focus of most research has been "discretionary time"--those hours which are not taken up by work, personal care and sleep and in which there is a relatively greater degree of choice and expression of preference (Chapin, 1974, p. 38). Much of the research has been concerned with the explanatory power of various status variables such as occupation, income, race, education, sex and life cycle as predictors of how people allocate leisure time. For example, Chapin found significantly different patterns between races which seem to reflect

larger inequities:

> ...the results show that differences between blacks and non-blacks in the extent of time devoted to recreation are tied to employment. Although our data will not permit us to explore such a notion satisfactorily, it may be that manual labor jobs of employed blacks leave them with less energy at the end of the day to engage in recreation than non-blacks in the same general economic level, who because of discrimination tend to have the somewhat higher status jobs that involve less manual labor (Chapin, 1974, p. 151).

Although almost all studies show that most leisure time is spent engaging in "passive" activities, it is also the case there has been a marked increase in public and private resources committed to "active" leisure pursuits (e.g. ORRRC, 1962; Curton, 1970; Driver, 1970). Recreation planning has emerged as an important field which relies heavily on the development of models to forecase demand for new facilities. In England, the United States and other countries, activity systems data has helped elaborate these modelling efforts (Burton for England, Sapora for U.S.)

Closely related is research in the fields of transportation planning and urban spatial structure. Individual activity patterns have been simulated by computer (Brail, 1969). Data on travel time collected as part of origin-destination surveys have been used in the study of the archetypal planning problem--journey to work.

Quantitative studies like those described above have made little effort to understand people's perceptions of time. This, of course, is rather important in the sense that time's "use-value" is obscured unless grounded in some definition of how individuals define it. Here participant-observers have made a significant contribution. The possibility that time is differentially valued is supported in various studies of American blacks which claim evidence of separate reality of "colored peoples time." "According to C.P. time a scheduled event may occur at any moment over a

wide spread of hours--or perhaps not at all. They (poor blacks in a St. Louis housing project) believe, however, that in the highly organized world of the whites, it occurs when scheduled" (Henry, 1965). Horton, in a study of black street corner life in Los Angeles elicited similar self-descriptions of time use. Waiting for things to happen rather than systematically allocating time was a commonly accepted distinction between "cool people" and middle or working class straights, black or white (Horton, 1967). These perceptions of time may be realistic, functional responses to structural, political-economic factors affecting life changes.

Studies of youth generally and of "delinquent" youth also suggest that a traditional concept of discretionary time is difficult to find. Blumer, for instance, found that many youthful drug users carry on a largely normal load of activity, yet perceive all but a fraction of their time to be irrelevant, useless and boring (Blumer, 1967). Time budget measures of behavior would be rather hollow if they did not capture the attitudes and motivations behind activities. Consider two hypothetical alternative summaries of the same youth's day.

> Time budget: John spent six hours at school, two hours at the park with friends and six hours eating, relaxing, studying and talking on the telephone at home until retiring.
>
> Observer report: John said that getting high with his friends was the only important, enjoyable activity in a typical weekday. It would have been so whether it had taken fifteen minutes or six hours and whether it had taken place at the park, in school, at someone else's house, at the shopping center, or at home.

These two examples represent different perspectives on the meaning of time. Rosenstock-Huessy notes that time is a social phenomenon--there is no such thing as pure or abstract time, only time shared, granted, taken, surrendered, created.

Although the research tradition, as reflected in the three types of studies described above is a rich one, the methodology remains rather primitive. Difficulties appear to be both conceptual and technical.

At the heart of the problem lies the assumption that individuals perceive time as a scarce resource to be allocated among competing uses, hence the preoccupation with questions of "how often" (frequency) and "how much" (duration) as analytical variables. The assumption is that such measures reflect "investment" and "intentions."

The bias of chrono-rationalism leads to other difficulties. For instance, investigators have had only modest success classifying people's activities in ways that are comparable and meaningful. People do not possess a universally shared perception and vocabulary when talking about time and about what they do, although such constancy is implicit in the time budget models. Perhaps more important, it is not necessarily the case that people's behavior, their motivation and evaluation of an experience, correspond and are shared. Furthermore, as noted above, it may be that many people simply do not allocate time according to rational, "middle class" criteria (Henry et al.). Logics of time are numerous, usually functional within a subculture and not necessarily amenable to quantitative analysis.

The problem is not just one of measurement. It cannot be solved by finding ways to standardize coded response categories, or developing more sophisticated "scoring" techniques. Nor is the problem solved by walking the fine line between quantitative, precoded surveys and qualitative observations to uncover what Chapin calls (1974, p. 66) "the thoughtways and lifeways that slip through the net of survey research."

In this context it is hardly surprising that children have rarely been of interest to those conducting time budget or activity system studies. The fact that their activity patterns are constrained by their dependent status, that they have little discretionary income and that theirs are not representative household time-utility functions (Becker) may make children problematic as subjects. On the other hand there is increasing recognition of the need to focus time studies on the behavior of all individuals within families and not just heads of households. After Kenneth Arrow, Brail (1969) notes that "in order to have a useful theory of relations among aggregates it is necessary that they be defined in a manner derived from the theory of individual behavior." Unfortunately in his own work Brail does not address the possibility of studying young people, and his models seem to draw heavily on the chrono-rational analog described above. Along this line, in his research Brail found that an individual's "role in household structure" proved insignificant as a predictor of "activity choice." Clearly, had children been sampled his results would have been quite different.

We are left then, in search of a research design that enables us to sort through the salient factors influencing and shaping a child's use of time. As we view them, traditional approaches fail to elicit the kinds of strong relationships that exist between children, their families and the neighborhoods they live in. We turn now to the task of defining an appropriate research strategy.

CHILDREN'S PERCEPTION OF TIME -- METHODOLOGICAL UNDERPINNINGS

No methodological approach or existing survey instrument could be readily adapted to our needs. The problem was how to design a questionnaire that would take into account the way children experience time. This section reviews our formulation of a child's concept of time and briefly describes the evolution of our instruments.

Most adults view their living patterns in some sort of "time bounded" framework. The pressures of daily life encourage the development of regular, relatively discrete modules of work, non-work activities and sleep. While the complex factors that give meaning to these patterns are personal and individual, adults generally tend to treat time as something of a scarce commodity, with a particular value, allocated among a range of alternatives.

Children (pre-teens) on the other hand, are perhaps less apt to fit their experiences into adult-like patterned, packaged, and organized modules. The "tempo" of their lives is different. Pre-teens do not live by the clock, they do many things with little reference to a time frame. This is not to say that adults are so terribly conscious of the time they spend doing different things. The difference, however, is that adults are more accustomed to thinking in a time bounded framework, so they can more readily estimate time allotments. Presumably these allocations represent "tradeoffs" or evidence of value and importance. While children may appear to make similar kinds of choices, in fact they may value them differently. Hence, the time spent doing something may be a poor indicator of its significance. An hour's trip to a movie might appear to be an extraordinary

commitment of time in adult terms (how often will an adult travel for an hour to do anything). For a young person it may be viewed simply as the cost of mobility and not as a tradeoff (opportunity cost) question. In other words, for young people, the phenomenon of time budgeting may be more complicated because notions of opportunity cost and investment apply less well.

Similarly, children may value parts of the day quite differently. For many young people there is so much deadtime (when there is really nothing to do) that the value of a particular hour of discretionary time may not equal the value of another hour (Blumer, 1967). Clearly, to investigate the use of time, it is important to know how children feel about the time they have available.

As noted earlier (Henry, 1965) there is evidence that the perceived value of time may vary across ethnic groups. Similarly it can be argued that for young people generally, the meaning of a given event or activity may not be the same as it is for an adult. On the same note, for pre-teens awareness of time itself varies across SES. There is some evidence that children from middle class families develop a sense of the relationship between activities and time at an early age. Bronfrenbrenner (1958) found that middle class youngsters are expected to learn to take care of themselves earlier and to accept more responsibility around the home. Furthermore, to the extent that participation in tasks and activities that are regularized and scheduled influences time perception, children from higher SES homes may be more comfortable with traditional norms and social roles.

There is also evidence that among children the concept of time vary with sex. Generally (as we have found in our work), girls must abide by sets of rules governing behavior which are less likely to be imposed on boys. These rules often center around time--when you must be home, how late you can stay next door, how late you can watch TV, etc. These kinds of rules naturally require more attention to the clock. Similarly, even among pre-teens, many girls cook meals and babysit for siblings, activities which are often time bounded.

Sensitivity to a child's concept of time complicates the process of building instruments. We have, for instance, found that there is a whole time-related "language" that children find problematic.

1. Rates of Participation. A child is asked: "How often do you do each of the following things. Do you do them often, sometimes, almost never or never." If the relative relationships are reasonably clear to respondents one can build indices that can serve as a sorting device--grouping people according to their propensity to do different things. Among adults such ranking strategies are often employed, on the assumption that subjects can relate participation to a "generalized" temporal dimension. But children have difficulty understanding indices designed to measure relative rates of participation.

Generally, pre-teens are troubled by ambiguity typical in questions about time. They want clear definitions (what does "almost always" mean?) of each term. Offering a definition, however, is not always possible, nor is it necessarily desirable. Since most young people do not view their activity patterns as regular and enduring as adults do, something they do "almost always" one week they may do "almost never" just a few weeks later.

2. Frequency. Consider another typical time budget question: "Which of the following things do you do regularly? Many children we spoke to wanted to know precisely what was meant by regularly--every day, every week, every month, or what? Confronted by the same question, an adult might be equally perplexed, but much less likely to raise a question. Adults seem reasonably comfortable with fuzzy concepts referring to frequency of participation. In other words, adults are more prepared to evaluate their actions without requiring a precise measure against which to judge their behavior. But in the same situation a child is confused.

3. Literal Interpretation. Pre-teenagers interpret questions quite literally. When asked if they were in glee club the answer was "no." (They were in chorale, but the question did not ask that.) When asked if they had been on a school field trip this year the answer was "no." (They had been on class field trips.) Asking the right questions in the right way is the essence of the field work survey experience. Dealing with children makes the dilemma more apparent since their interpretation of questions is so literal.

4. Fixing Events at a Point in Time. Consider three possible responses to the question "Have you done the following activity " "ever," "since the school year began in September," "in the last month."

Fixing an event in time is difficult for children. It taxes their memory and they tend to respond to most questions as if they had been asked "have you ever." This is one of the clearest examples of the difficulty children have separating periods of time into discrete units.

While an adult can usually distinguish between things done last month from things done last year, the eleven year old views the past (beyond the very recent past) as a rather amorphous whole. Hence time bounded categories that seem important to adults are easily lost by the child, who does not really make these "fine" distinctions at all.

These kinds of problems must be confronted in any methodological formulation. Our instruments, developed and tested over a period of eighteen months, were designed to elicit from children what was most salient to them (i.e. behavior), while our parent questionnaires focused primarily on issues of values, attitudes and opinions. As part of the design process, the following procedures were tested: having children record their activities in journals; conducting informal small group discussions with children in classrooms; administering closed-ended questionnaires to students in classrooms; conducting open-ended exploratory interviews with children at home; and administering structured interviews of varying length with parents and children at home, employing a number of interviewing techniques.

The end product was two instruments--a child's interview and a parent's self-administered questionnaire--to be used in the child's home. (See Appendix C.)

Besides the question of how children perceive time, the instruments are also sensitive to children's cognitive skills. Researchers often assume: a) that children have factual information that may not actually be available to them (e.g. parents' education, occupation); b) that they have opinions about subjects they may know little or nothing about; c) that they will not succumb to pressure to give "socially desirable

responses" if questions implicitly or explicitly seem to have "right" or "wrong" answers; and d) that by substituting shorter words for longer words--a concession to children's "miniature" vocabularies--adult type questions can be asked successfully. Making these kinds of assumptions may seriously undermine the utility of an instrument.

The design problem, then, focused on developing an instrument sensitive to children's concept of time and to their cognitive capabilities. Without confronting issues like those raised above, researchers will continue to argue that childhood can only be studied "reliably" through the eyes of adults. A separate evaluation of our field experience and the administration of instruments is now in progress.

CHILDREN'S USE OF TIME
ANALYTICAL UNITS

The sections which follow briefly describe the analytical framework that has been established for this study. The three components--use of time as a function of family life, sex roles and neighborhood characteristics--are related at many levels. Nevertheless, we will argue that independently each offers an opportunity to explore the use of time from a different perspective, thereby enriching our understanding of the impact of out of school opportunities on children's life chances.

THE FAMILY ENVIRONMENT

Most contemporary social research on the subject of socialization places on the family the burden of responsibility for maximizing children's life chances. James Coleman, writing on the concept of equality of educational opportunity, has carefully stated the problem of predicting life chances. He asserts that the answer lies in knowing the relative intensity of two sets of influences: "those which are alike (for all children), principally in school, and those which are different, principally in the home or neighborhood. If the school influences are not only alike for the two groups, but are very strong relative to the divergent influences, then social groups will move together. If school influences are very weak, then, the . . . groups will move apart. Or more generally, the relative intensity of the convergent school influence and the divergent out-of-school influences determines the effectiveness of the educational system in providing equality of educational opportunity."

Relatively little is known about the divergent influences of family and neighborhood. A review of the schooling literature in particular, shows the importance of socioeconomic status in determining life chances; yet the cultural content of these important summary variables (e.g. parent's occupation, education, income) is obscure.

One objective of our survey is to look at structural, attitudinal and behavioral characteristics of family life, separately and together to show the diversity of environments in which children from a single cohort, in a single city are raised.

Differences in family life can be measured in a variety of ways. Three, in particular, are important determinants of cultural variation:

1. The composition of the family.
2. The normative environment of the family.
3. The complex of attitudes and values that children and parents have toward such things as schooling, social services, sex roles, and peers.

Taken together all of these factors, and some others, will influence how children view their out of school time and how they spend it.

We begin with a rather straightforward model of the relationship between family life and various outcome measures. Simply put it is this: Parents do not seem to differ much in their aspirations for their children and in many of their attitudes toward child rearing. They do differ, however, in ability, willingness, and knowledge of how to translate their aspirations and attitudes into behavior--their children's behavior. The concept of translation is important. Otis D. Duncan has argued that one reason black adults do not achieve jobs of equal status to those of whites is that they are unable to translate educational attainment into occupational status. The breakdown of this process of translation can be partially or totally determined by social forces, such as discrimination, by an individual's lack of knowledge of how to maximize opportunities, or by sub-cultural constraints thwarting the maximization of opportunities. We would argue that many aspects of family life which middle class families

incorporate into a tight normative structure of daily routine, are not so evident in lower class families. These differences should be visible in bold relief, even in so crude an instrument as a social survey.

The relationship between behavior and values has been a fertile area for sociological inquiry. One issue that we want to explore with this data is the relationship between parental values, parental behavior and children's behavior. How much of a child's day appears to come under the scrutiny of parental supervision? Do most families eat together? Where do children play after school? Who is home with children after school? How do parents feel children should use their discretionary time? What do children actually do? How much of the day is ordered by a set of norms which both mother and child recognize and agree on?

We are particularly interested in the relationship between achievement orientation, structure of family life, and use of time For instance, there is evidence in a preliminary look at our data that parents (mothers) have both high educational aspirations and expectations for their children. This is true whether the family is an upper middle class white family or a ghetto black family. Unfortunately, it is possible to predict with fair certainty what proportion of children from a given social class background will even graduate from high school. As many as half of the boys from lower class black homes, nationally, will fail to complete high school with their cohort. Yet, the families from which these boys come have both high expectations and high aspirations of educational success.

We are looking with interest at families where educational aspirations are high but achievement is low to see what the day to day life of

the child is like. We have begun with an analysis of the educational aspirations of parents, T.V. viewing habits of families, and the level and kind of reading done outside of school. What we have found in a first look at the data is that T.V. watching is greatest, the child's leisure time reading is least where there is the greatest distance between the educational aspirations of the mother and the probability (using national data) that children from that social group (e.g. lower class black families) will achieve a high level of educational attainment. Thus, in the lowest SES group, children watch the greatest amount of T.V. and do the least reading. This in a context where the parent has both very high educational aspirations and high expectations. We believe that other indicators of this sort can be identified in our data.

Family life

We have taken an eclectic approach to measuring differences in family characteristics. In our view, it is not economic fortune, nor achievement orientation nor an intact family that alone influences the kind of life a child has--but all of these things combined with other characteristics of family life. The survey was designed to offer a variety of measures of differences in family life. Several examples are:

1. Composition of the family - We have detailed data on the number of adults in the household; their relationships to the child respondent and to each other; the number of siblings and their ages. We can, therefore, characterize homes as single parent homes, two parent homes, extended families, etc.

2. Size of the family - Family size clearly has an impact on resources available to each member of the family. We expect to describe the way it influences the organization of family life.

3. Birth order - Previous social research has shown the importance of birth order in the achievement process, especially for girls. Families can be characterized by birth order and sex of the respondent child: e.g., a two-child family with an older boy as respondent. This will allow us to look, for example, at children with similar birth patterns but differing social class backgrounds.

4. Education of the parents - In this research we will look at economic resources and cultural resources separately. The education of the parents is a rough measure of the cultural milieu of the household. This is especially so when it is used in relation to the mean educational attainment of the parent's cohort. Thus a young black mother with only an 8th grade education is below her cohort in educational attainment as compared to a black mother of fifty years of age.

5. Labor force status of the parents - This is clearly important in determining the level of economic resources but is particularly useful for it tells us, in conjunction with day care questions, about who is in the home with the child during the day. With this data we can compare, for example, the family life of dual-career families with that of single-career, single-parent families.

6. The structure of family life - Families can be characterized as more or less structured. Questions like: Does the family eat together? At the same time every night? Is there a definite bedtime for children? will enable us to create indices of structure.

7. Normative environment - The structure of family life is one measure of the normative environment. Other measures can be created from parents' attitudes about how a child should use discretionary time and how independent children are at different ages.

8. Achievement orientation - Families as well as children can be characterized as achievement oriented. Those families with high educational aspirations and emphasis on pursuit of high culture in free time can be compared to families which are not oriented in this way.

9. Level of family activity - This variable captures variation in the number and kinds of activities which families do together.

Analyses

Several analyses of family life and childhood are planned:

Family life in single cohort - A descriptive analysis of the variety of growing up environments found in a single city, in a single cohort. We will compare the demographic characteristics of families, composition of household, labor force status of parents, and kin networks with national distributions. Census data tells us that children are growing up in single parent families in increasing numbers -

families where the mother is head of the household. 46% of the black families and 20% of the white families in Oakland are headed by women. Understanding the frustrations, the values and aspirations of these families is of particular interest to us.

Television: the context of family life - We will analyze the T.V. viewing behavior of Oakland families. How much T.V. do children and their parents watch? Is viewing selective or not? How does T.V. viewing vary by social class and family type? What are the differences between "heavy" and "light" T.V. viewers--parents and children. Our data indicates that in many homes the T.V. is on most of the at-home hours. It therefore provides the background against which much of family interaction takes place.

The home-life of the high achiever and the low achiever - In conjunction with standardized testing data for children in the sample, this will focus on the family composition of different types of achievers; characteristics of the normative environment; a description of how high and low achieving children spend their time; their attitudes and their parents' attitudes toward the use of time outside of school.

Participation in family activities - What kinds of things do parents and children do together in their time away from work and school? Is time together directed toward goals of the parent - e.g. shopping, home maintenance - goals of the child - or both? Do activities vary by type of family, social class, race and ethnicity?

Taken together, this analysis will provide a rich description of the ways in which the use of time reflects different, family-derived norms and

values. It will be coupled with parallel discussions of the use of time and differences across sex and the use of time and characteristics of neighborhoods and the physical environment.

NEIGHBORHOOD CONTEXT

As noted earlier, most children live in neighborhoods characterized by high degrees of homogeneity. That is, they live among children not unlike themselves and in many ways (on social status measures particularly) their parents are not unlike their friends' parents. Neighborhoods are both physical and social environments--they are manifestations of the way our society sorts people by social class and ethnicity.

The neighborhood analysis is designed to document the existence of homogeneous living conditions and then ask: What are the "clustered effects" that this arrangement may have on children? The argument is complicated by the special impact of neighborhoods on children's daily lives. Children spend most of their time quite close to home, and the home-centered physical environment encompasses not only a social world, but it also provides an important component of each child's resource base--streets, parks, libraries, schools, recreation facilities, shops, open space, etc.

Researchers have attempted to develop a child's-eye view of neighborhood life. Using a variety of techniques, sociologists, planners, architects, psychologists, and geographers have described many of the ways in which children learn to cope with the urban environment (Moore, Ladd, Cooper). Several themes emerge: (1) Children are, above all, adaptive and versatile--innocently expert at seeking out the most entertaining

features of any environment. (2) Places acquire meaning for children through both legends and personal experiences, and indirectly from norms established by the adult community. (3) Children's familiarity with the city, and their geographic range are correlated with social class (Wellman).

We begin, then, with a healthy respect for children's initiative and imagination. Even so, neighborhoods do reflect substantially different opportunity sets which invariably affect what children do and can do. For each of the twenty neighborhoods in our study we have gathered comparable information on various characteristics of the area. The range of "contextual" data includes 1) enumerations of school-based cultural and recreation activities available to children during the school day; 2) enumerations (type and number) of public recreation facilities; 3) descriptions of public library services for children; 4) juvenile crime statistics; 5) mass transit service indices; and 6) aggregate characteristics of the area's population: ethnicity, conditions of housing, etc. Taken together approximately 100 variables constitute the contextual data "set," aspects of the neighborhood environment which are notably different from one area to another. In many cases serious inequities in public spending can be documented, although they are clearly different than those condemned in the landmark case, Hawkins v. Shaw. First, they are usually cases of relative rather than absolute deprivation. Second, discrimination appears to be imposed more on an economic group than a racial one. Third, for many human services the expenditure levels may be fairly equal although "outcomes" may be very different across neighborhoods.

While our contextual data provide a description of wide disparities of service inputs, the survey itself is more concerned with outcomes--the

benefits gained by residents. (Wildavsky, Meltsner, Levy) One type of outcome measure is usage. Another is user (and non-user) attitudes. Both kinds of indicators will, of course, vary by neighborhood, often in directions contrary to input (service/expenditure) level. For instance, parents may be dissatisfied with a library, even though a proportionately greater amount is spent on it. Or children may flock to a recreation center because of the exceptional talents and personality of a play leader, in spite of relatively meager funding.

While children's use of time is critically affected by the range of opportunities that are available, both children and parents perceive these opportunities in ways conditioned by social life. Use of a park is not necessarily determined by the quality of landscaping or supervision. Physical spaces are imbued with meaning by virtue of the community's value consensus, social interaction, and degree of personal indentification with the neighborhood (Smith). For example, a low level of social interaction may contribute to fewer "eyes on the street" and less neighborhood defenses against crime, which may in turn make certain public play spaces unsafe for 12-year-olds--and most other people (Berg).

Access is a key concept affecting the way children and adults perceive and value services. We define access as a physical and social phenomenon. Whereas proximity is the traditional measure of physical access, social access is more complicated, for it involves knowledge of what a service has to offer and a sense that participation will have "payoffs." It is often the case that the poor have physical access but lack social access. Furthermore the structure of many services is such that no matter how well intentioned providers may be in designing facilities and programs, they show no

appreciation or sensitivity to the daily life struggles of poor families which prevent them from taking advantage of apparently "free" opportunities for their children. Equally important, the content and style of many of these programs may be boring, irrelevant, or even suspiciously similar to school for some children.

The survey data will contain a wealth of material on the degree to which neighborhoods meet the needs of families and children. Especially important, we believe, will be data on the extent to which neighbors share attitudes toward services for children.

Analyzing Neighborhood Effects

We have outlined three broad areas of interest: the physical environment, the social environment and public sector resource base. On each issue we have contextual file, parent questionnaire and child interview data available.

Our argument will go something like this.

Children are on intimate terms with the neighborhood in which they live, more so than adults. The nature of the neighborhood partially determines the degree to which they are exposed to different kinds of people, experiences, and opportunities. The characteristics of neighborhoods which affect a child's use of time include: A) homogeneity of the population, especially in terms of life cycle, social class and ethnicity; B) social cohesion including informal contact among neighbors, consensus of values, and personal identification with the area (sense of belonging); C) opportunity to be mobile rather than dependent on adults at all times; D) personal safety (e.g. crime, traffic); and E) quality and level of public

services. The fact that families living in proximity may be quite alike is more than a statement on social structure. For children, it may influence ways of "being," hence personal development.

Public sector services for children are largely provided at the neighborhood level--they are a part of a child's resource base. There are disparities in service levels, but more importantly, outcomes are different. To understand these differences we will assess the various elements of access and social cohesion across neighborhoods and determine their impact on the delivery of services.

Finally, we will attempt to evaluate the relative importance of these neighborhood effects, compared to the family environment and individual characteristics of our respondents, as influences on their day-to-day activities and, ultimately, their life chances.

SEX DIFFERENCES

This study holds considerable promise for providing descriptive data on the use time as it relates to the sex of the child, as well as sex differences in children's attitudes toward the things they do and the neighborhood environments in which they live. Beyond describing sex differences, this data set will enable us to explore the social antecedents of observed differences.

Findings related to sex differences have often been inconsistent, and emperical sociological data is sparse, especially for pre-adolescent children. The scope of previous research has been limited, focusing primarily on issues

such as school achievement (Douglas; Heyns) or on psychological constructs such as dependence (Martin), aggression, or self-esteem (Rosenberg). Differences in the quality of everyday life as experienced by boys and girls have seldom been explored.

The summary of research in the area of sex differences by Maccoby and Jacklin (1974), as well as a critical review of the conclusions drawn from this research (Block, 1976), illustrate the difficulties involved in developing methodologies to study sex differences in children. Reasons for inconsistent findings, so common the literature, are outlined by Block (1975). In particular, we note the preponderance of conclusions based on very small samples, on subjects less that six years old and from white, middle class backgrounds.

In this regard, it hoped that our sample of 764 children will make a valuable contribution to the knowledge base. With this large a sample, covering a wide range of socioeconomic circumstances and ethnic backgrounds, we are able to control for variables in ways that cannot be done with smaller, more homogeneous populations.

Description of Sex Differences

Descriptive analysis of sex differences will be undertaken in several areas:

Differences in use of out of school time. The data set (child and parent surveys) will be analyzed for differential effects of the sex. This will include analyses by sex of the kind and variety of activities participated in, the degree to which activities tend to be active or passive, and the extent to which activities are home-based as opposed to away-from-

home, independent activities. In addition, specific activities, such as household chores, TV watching, organized sports, and voluntary school activities will be examined.

Activity preferences. On some questions, children's expressed preferences can be examined across sex, e.g. attitudes toward voluntary school activities, private lessons, and organized groups such as the Scouts and of unstructured activity preferences with friends or alone.

The neighborhood environment. Attitudes toward the neighborhood--likes and dislikes, perception of safety, fears, geographic range--will be examined by sex. Here we expect to find significant, independent effects of sex.

Attitudes toward school, TV and self-image. We believe that our data may show important sex-related differences on each of our attitudinal batteries.

Material resources. We are asking whether material resources available to children are in any way sex linked--including parent's spending on children for activities, allowances, etc.

Autonomy. There may well be sex differences in the amount of "free time" children say they have, in the child's freedom to choose his/her activities, in freedom of movement and in rules set up by parents.

Factors Mediating Sex Differences

Observed sex differences in children's attitudes and behavior may be related to a whole range of familial, extra-familial, and peer group factors. For instance, there is little question that the schools, the mass media, and parents play major roles in teaching children "appropriate"

sex role behavior.*

Our data does not speak directly to the effect of the mass media on sex differences, and can provide only minimal insight into the role of schools. However, the data does directly address the mediating effects of parents' child rearing attitudes and socialization priorities, family structure, ethnicity and socioeconomic status.

There is a considerable literature on the relationship between parents' attitudes and methods of socialization and a child's personality and behavior (Maccoby and Jacklin). That sex differences are mediated by family socioeconomic status has been shown by Coleman, Chamberlin and others. We intend to analyze the effects of SES variables (family income, parents' education, and occupation) and ethnicity on parents' socialization attitudes and on the activities and attitudes of the children.

Figure 1 is an example of the kind of analysis which can be done to begin to sort out the relative impact of the various SES variables. On the parent's questionnaire, respondents were asked to check whether they agreed, disagreed, or were not sure that "Girls should be raised more strictly than boys." The figure shows the percent of parents who agreed with this statement, first by the three major socioeconomic strata of our sample, then by family income and finally by level of mother's education. Responses to this item appear to be more dramatically related to mother's education than to socioeconomic status and family income although the pattern of responses by all three variables is clear.

The analytical power of the data set is further enhanced by the fact that over one third of the children surveyed live with one parent (the mother) while the majority live in traditional two-parent families. With

*The possible influence of genetic factors is also outside the purview of this survey.

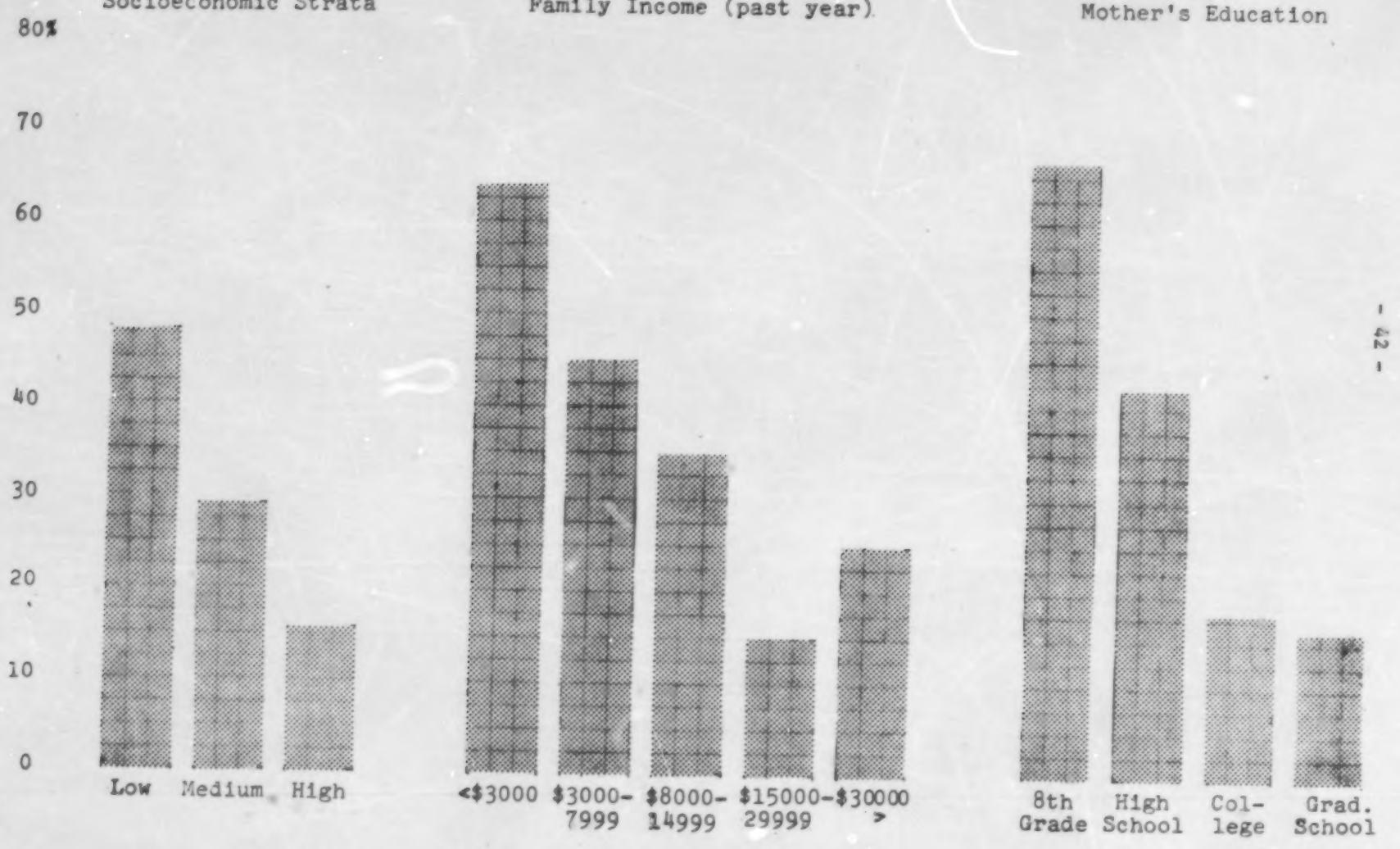
large samples of each we can explore the effect of family structure on children's sex roles. Also, approximately 60% of the sample is black and of those 40% are in the upper two socioeconomic strata, allowing for analysis of sex differences by race holding SES factors constant.

This analysis may be especially useful, coming at a time when sex roles and family structures are changing. Changes are occurring slowly, however, and we expect to find a preponderance of traditional sex differentiation in the activities and attitudes of the children and parents we have interviewed. Our objective is to examine the data relevant to the issues of sex stereotyping and its manifestations in a descriptive fashion, putting aside personal values and hopes, and ultimately tying our findings back to a larger model of use of time as a product of various social and environmental correlates.

Percent of Parents Agreeing: "Girls should be raised more strictly than boys."

by Socioeconomic Strata, Family Income, and Mother's Education

N = 755



II

THE STUDY SETTING AND CHARACTERISTICS OF THE SAMPLE POPULATION

This research is focused on children from one community, Oakland, California. Our choice of a site was dictated by the study objectives--we required a setting that would capture the range of socio-economic circumstances in which Bay Area children live. Given fiscal constraints, Oakland came closest to meeting our needs.

Oakland is not unlike many central cities that went through rapid demographic transition in the 1960's. It is in fact two cities--one relatively rich and white, the other relatively poor and nonwhite. The trend of white withdrawal and black entry, which began in the 1950's, reached dramatic levels in the 1960's.

Table 1

Total Population by Race: Oakland, 1960 and 1970

	1960		1970		Change	
Race	Number	Percent	Number	Percent	Number	Percent
Total	367,548	100.0	361,561	100.0	- 5,987	- 1.6
White	270,523	73.6	213,512	59.1	-57,011	-21.1
Black	83,618	22.8	124,710	34.5	+41,092	+49.9
Other Nonwhite	13,407	3.6	23,339	6.4	+ 9,932	+74.1

Sources: 1960 and 1970 Census of Population

The Oakland City Planning Department reported:

> While households with husband-and-wife families dropped by 10,000 (13%), one-mate only households (male only or female only) increased by 3,000 (18%), and the non-family household (single or unrelated individuals) by 12,000 (32%)." (OCPD Report 223)

Household composition reflects profound difference across races. In Oakland whites are far more likely to be "unrelated individuals" while nonwhites are much more likely to be living in families.

Table 2

Household Composition: Oakland, 1960 and 1970
All Races

	1960		1970	
	Number	Percent	Number	Percent
Total Households	133,843	100.0	138,831	100.0
Family Households	96,269	71.9	89,233	64.3
Husband-Wife	79,946	59.7	69,998	50.4
Other with Female or Male Head	16,323	12.2	19,235	13.9
Households of Unrelated Individuals	37,574	28.1	49,598	35.7

Sources: 1960 and 1970 Census of Population

Table 3

Household Composition of Black and Spanish-Surname Families:
Oakland, 1970

	Black		Spanish-surname	
	Number	Percent	Number	Percent
Total Households	39,778	100.0	11,208	100.0
Family Households	28,529	71.7	8,650	77.2
Husband-Wife	18,870	47.4	6,818	60.8
Other with Female or Male Head	9,659	24.3	1,832	16.3
Households of Unrelated Individuals	11,249	28.3	2,558	22.8

Source: 1970 Census of Population

Although the proportion of single parent households in the total population rose only slightly between 19 0 and 1970, they are much more common among blacks than among Spanish surname or white families. Single parent families were more likely to be poor, as Table 4 shows. In all types of households, more blacks and Spanish surnamed individuals lived below the poverty line than whites or Asians. Median income and unemployment rates followed the same pattern.

Table 4

Total and Poverty Level Population by Ethnicity:
Oakland, 1969

	No. of Families	Below Poverty Level		Female Headed Below Poverty	
		Number	Percent	Number	Percent
Total Population	89,975	10,868	12.2	5,876	54.1
Black	28,529	6,221	21.8	4,215	66.3
Spanish Surnamed	8,650	1,321	15.3	601	45.3

Source: 1970 Census of Population

While for the city as a whole Oakland's ethnic and socio-economic characteristics show significant differences, Oakland can also be viewed another way--as two different cities, one with children, and one without. The characteristics of families of public school students are very different from the characteristics of the total population. The ethnic characteristics of the "two cities" in 1970 and 1975 is shown in Table 5. The column headed "ratio" shows the striking differences in the proportion of school children to total population for each group.

Table 5

Ethnicity of School and City Populations: 1970, 1975

	1970					1975	
	City		Schools		Ratio	Schools	
	Number	Percent	Number	Percent	School/City	Number	Percent
White	178,998	49.5	16,136	26.2	.090	9,571	17.8
Black	124,671	34.5	36,214	58.8	.290	35,814	66.7
Spanish	35,372	9.8	5,201	8.4	.147	4,078	7.6
Asian	16,679	4.6	3,139	5.1	.188	3,719	6.9

The school population has also changed dramatically, and in a relatively short period of time. This becomes clear by looking at a single cohort of school children over time. In 1970 there were 26,709 children under age 5 in Oakland--32.5% were white. Of the elementary school population five years later (1975), among that same cohort (now age 6 to 11) only 18.6% are white. In other words,

there are half as many whites at the appropriate grade level in the public schools in 1975 as there were white preschoolers in 1970.

Table 6

Persons under 5 years old in 1970

	Under 5 in 1970		In Elementary School, 1975
	Number	Percent	Percent of Total
White	8,596	32.2	18.6
Black	12,214	45.7	65.6
Spanish	3,858	14.4	8.0
Asian	2,041	7.6	6.6

In addition to being more nonwhite, the public school population is also less affluent. In 1970, for instance, 38% of the children attending the public schools were from AFDC families, while only 12.2% of all families in Oakland were below the poverty level that time.

CHOOSING THE SAMPLE

With this as background, we turn now to a brief description of the sample itself--details are included in Appendix A.

This is a study of sixth grade (age 11, 12, 13) students attending the Oakland public schools in the Spring of 1976. Oakland has 59 elementary schools which, for sampling purposes, were ranked by percentages of students from AFDC families (data provided by the School District, current as of December, 1975*) and ethnicity (current as of Fall, 1975), two variables which turned out to be highly correlated. Three master sampling strata were created with AFDC break-points at 0-9.9%, 10-37.6% 01 37.7%+. Each school fell into one of the three strata. The first two master strata were divided into three substrata each and the lower master strata had four substrata (i.e., three master strata, ten substrata in all). Two schools were chosen randomly from each substrata to represent all

* The Oakland Unified School District assisted by providing various materials to ensure a proper sampling data base.

schools in the substrata, with probability proportional to size and with an imprecise geographic (non-contiguity) constraint. In two cases, two adjacent small schools with similar characteristics were combined to form one sampling point of sufficient size. Because the upper two master strata were more heterogeneous they were sampled more heavily than the lowest master stratum. All of the sampled Stratum 3 schools received ESEA Title I funding; none of the schools in Stratum 1 or 2 receive comparable categorical aid.

The following table compares the aggregate characteristics of the sampling points with those of the entire 59 elementary school universe.

Table 7

Comparison of Sample Schools and Entire System

		Master Stratum			
		1	2	3	Total
% AFDC	Sample	3.1	27.8	55.0	39.8
	System	4.4	25.9	52.4	38.1
% Black	Sample	17.0	50.7	88.7	67.7
	System	14.8	51.3	84.0	64.5
% White	Sample	66.4	26.4	3.0	19.6
	System	62.6	26.9	4.6	19.9
Reading Scores	Sample	7.12	5.52	4.17	4.99
	System	6.84	5.46	4.22	4.96

CHARACTERISTICS OF THE SAMPLE POPULATION

Within the 22 school sample, children were selected randomly again by probability proportional to size. Seven hundred sixty-four (764) interviews were conducted during the Spring and early Summer, 1976 (90% of all interviews were completed prior to the close of school in June). The completion rate (successful interviews/eligible participants) was very high: 86%. To a large extent,

interviewers and respondents were matched by race.*

Among the three master strata interviews were distributed as follows:

Stratum 1	223
Stratum 2	236
Stratum 3	305
Total	764

Among schools in the ten substrata no less than 69 nor more than 83 interviews were completed.

By sex, the sample included 375 boys (49%) and 389 girls (51%).

Racial characteristics of the 764 respondents and their families are as follows:

White	185	(24.2%)
Black	457	(59.8%)
Mexican-American	35	(4.6%)
Other Spanish Surname	4	(---)
Oriental	70	(9.2%)
Other	13	(1.7%)

The marital status of the 764 parents or guardians who filled out questionnaires was:

Married	478	(62.6%)
Separated	86	(11.2%)
Divorced/Widowed	175	(22.9%)
Never Married	23	(3.0%)
Not Ascertainable	2	(---)

Four hundred ninety-two (492) males and 272 females are household heads.

* The interviewing team consisted of 16 women, 6 white and 10 black. When necessary interviews were conducted in parent/child native tongue through an interpreter (Spanish, Chinese, Portugese, Arabic).

Characteristics of the children's nuclear families are:

Two parents and minor children	410	(53.6%)
Two parents and adult and minor children	67	(8.7%)
One parent and minor children	236	(30.9%)
One parent and adult and minor children	34	(4.4%)
No nuclear family	17	(2.2%)

The characteristics of the children's households are:

Nuclear family only	670
Nuclear family and other relatives	63
Nuclear family and unrelated persons	16
Nuclear family, relatives and unrelated persons	2
Other (e.g., head and grandchild)	13

At this time no correlation matrices have been run relating family characteristics to one another.

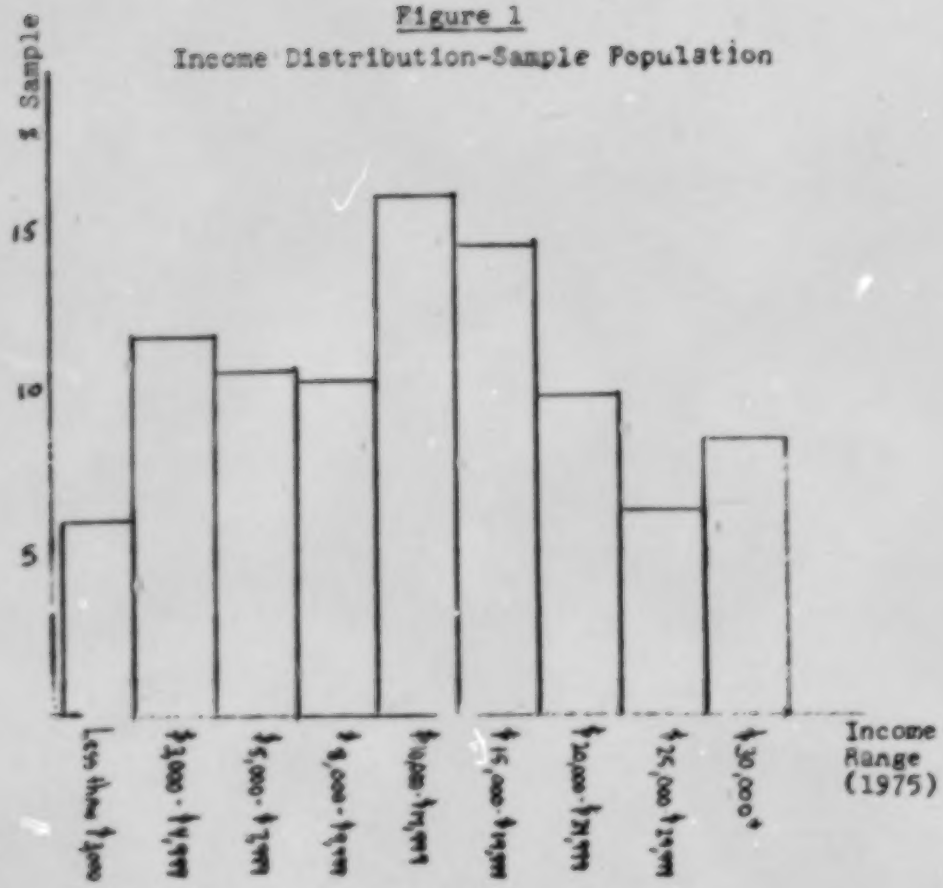
Total family incomes (before taxes) among the sample population are normally distributed.

Less than $3,000	47	(6.1%)
$3,000 - 4,999	86	(11.2%)
$5,000 - 7,999	82	(10.1%)
$8,000 - 9,999	78	(10.2%)
$10,000 - 14,999	122	(15.9%)
$15,000 - 19,999	110	(14.3%)
$20,000 - 24,999	73	(9.5%)
$25,000 - 29,999	48	(6.2%)
Greater than $30,000	64	(8.3%)
Uncodable	53	(6.9%)

The distribution looks like this:

Figure 1

Income Distribution-Sample Population



Parents educational attainment is to be a crucial variable in our analysis. Highest level of school completed for parents of children in the sample was:

	Parent Respondent*	Spouse
8th grade or less	61	80
Some high school	114	122
High school graduate	211	203
Some college	231	170
College graduate	65	74
Graduate of professional school	70	85
Uncodable	12	30

* In 735 of 764 cases the parent respondent was the natural or adoptive mother. The "spouse" was the father or step-father, for whom data was sought even if he was no longer part of the household.

Of the mothers in the sample 308 are employed full time, [illegible] part time. Two hundred twenty-eight (228) said they were "full time" housewives. In 430 cases spouses were described as full time employed (of a possible 478 married couples in the sample).

These then are the general characteristics of the sample population. Briefly, they are predominantly nonwhite, well distributed on socio-economic status variables, and clearly resembling public school populations one is likely to find in any big city today.

CHILDREN'S USE OF TIME

SELECTED CHARACTERISTICS OF THE

SAMPLE POPULATION

TABLES

1. Sample Size by Stratum and School

2. Composition of the Three Master Strata: Race, Family Income and Education of Parent Respondent

3. Family Income and Number of Earners per Family by Race

4. Education by Race

5. One- and Two-Parent Families by Stratum and Race

FIGURES

1. Family Income by Three Master Stratum

Table 1

SAMPLE SIZE

by Stratum and School

Master Stratum	Sub-stratum	School	Number of Completed Interviews
I High SES	1	1	37
		2	38
	2	1	35
		2	40
	3	1	42
		2	31
		Total	223
II Medium SES	4	1	36
		2	37
	5	1	43
		2	37
	6	1	44
		2	39
		Total	236
III Low SES	7	1	37
		2	46
	8	1	41
		2	28
	9	1	40
		2	37
	10	1	36
		2	40
		Total	305
	Grand Total		764

Table 2

Composition of the Three Master Strata:

Race, Family Income and Education of Parent Respondent

(percentaged vertically)

	Stratum						Total	
	I		II		III			
Race:	%	N	%	N	%	N	%	N
White	63.2	141	14.0	33	3.6	11	24.2	185
Black	17.9	40	62.7	148	88.2	269	59.8	457
Mexican-American	2.2	5	5.9	14	5.2	16	4.6	35
Asian	15.2	34	14.4	34	0.7	2	9.2	70
Other	1.3	3	2.9	7	2.3	7	2.2	17
Total	100.0	223	100.0	236	100.0	305	100.0	764
Income:								
≤ $4,999	1.9	4	17.2	38	32.8	91	18.7	133
$5,000 - $9,999	8.9	19	23.6	50	32.8	91	22.5	160
$10,000 - $19,999	37.2	79	35.9	77	27.4	76	32.7	232
$20,000 +	51.9	110	25.3	56	6.9	19	26.1	185
Total	100.0	212	100.0	221	100.0	277	100.0	710
Education:								
8th grade or some high school	9.0	20	17.3	40	38.4	115	23.3	175
high school grad.	19.4	43	32.5	75	31.1	93	28.1	211
some college	33.3	74	35.5	82	25.1	75	30.7	231
college grad. or graduate school	38.3	85	14.7	34	5.4	16	17.9	135
Total	100.0	222	100.0	231	100.0	299	100.0	752

Table 3

FAMILY INCOME AND NUMBER OF EARNERS PER FAMILY
BY RACE

(percentaged horizontally)

	Family Income				Number of Earners		
Race:	≤$4,999	$5,000-9,999	$10,000-19,999	$20,000+	0	1	2
White	6.2%	12.4%	37.3%	44.1%	8.1%	53.5%	38.4%
Black	24.9	28.0	29.2	18.1	25.6	41.1	33.3
Mexican-Amer.	37.4	18.8	40.6	3.1	14.3	71.4	14.3
Asian	3.1	15.7	37.5	43.7	4.3	35.8	60.0
Total	18.7	25.5	32.7	26.1	19.0	45.3	35.8

Table 4

EDUCATION BY RACE

(percentaged horizontally)

Race:	8th grade or some high school	high school graduate	some college	college graduate or grad. school
White	11.4%	20.5%	33.5%	34.6%
Black	24.4	31.0	32.7	11.8
Mexican-Amer.	58.9	17.6	17.6	5.8
Asian	22.3	37.3	19.4	20.9
Total	23.3	28.1	30.7	17.9

Table 5

One- or Two-Parent Families
by Stratum and Race

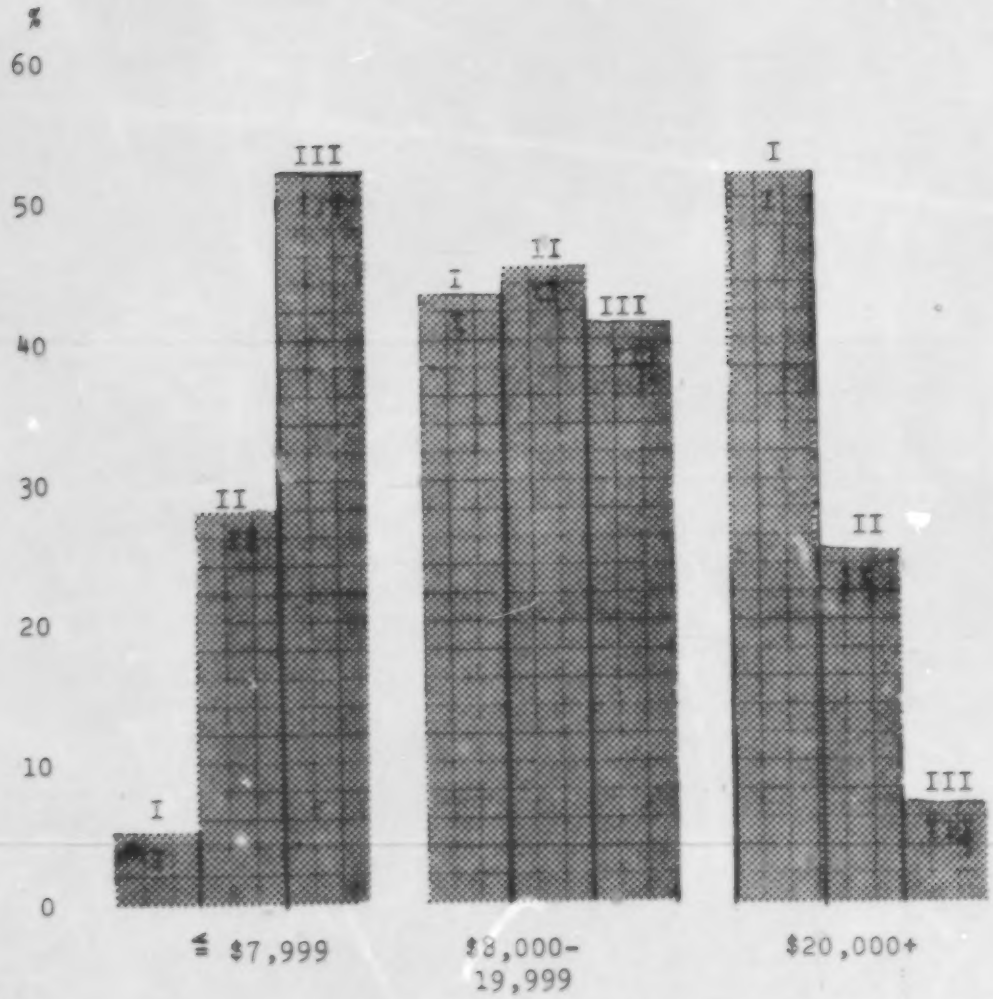
(percentaged horizontally)

	1-Parent		2-Parent	
Stratum:	%	N	%	N
I	13.0	29	85.7	191
II	33.5	79	64.8	153
III	53.1	162	43.6	133
Race:				
White	20.5	38	78.4	145
Black	46.2	211	50.8	232
Mexican-Amer.	37.1	13	62.9	22
Asian	5.7	4	92.9	65
Other	23.5	4	76.5	13
Total:	35.3	270	62.4	477

FAMILY INCOME BY 3 MASTER STRATA

(I- High SES, II- Medium SES, III- Low SES)

N = 710



III

PROGRESS TO DATE--STATUS OF THE DATA AND THE ANALYSIS

Data collection was completed early in the Summer, 1976. Editing, coding and cleaning of the basic data package was completed in December. A followup verification study--recontacting all participants in the study so that we can examine consistency of responses over time--was completed in September.

By mid-January, 1977, all tapes will be ready. This will end the first phase of the research which began with the preparation of survey instruments in the Fall, 1974.

To facilitate examination of the rather large data base, the study group has been divided into several teams. The objectives of each team, anticipated outcomes and projected time frames are described in the following section. With the tapes organized by January, early tables and general summary materials are likely to be available in approximately twelve months.

Unlike many social surveys, the data which we have collected enables us to employ several research strategies simultaneously. Parent questionnaires and children's interviews can be used separately for individual level analyses, or the parent survey can be used in conjunction with the children's--as contextual data serving as "background." Both surveys, when summarized across neighborhoods can be used for aggregate level analysis. The package is statistically versatile and, as noted in Section I above, our work will continually move between individual (N = 764 respondents) and aggregate (N = 20 neighborhoods) levels.

APPENDIX A [1]

Preliminary Report
Sample Design and Field Results
The 1976 Survey of Children's Use of Time

This report presents a preliminary description of the sample design, field work methods, and field outcomes of the 1976 Survey of Children's Use of Time. This survey was conducted for the Childhood and Government Project of the School of Law, University of California at Berkeley and was made possible by a grant from the Ford Foundation and the Carnegie Corporation of New York. The Survey Research Center of the University of California at Berkeley assisted in the survey's sample and instrument design and completed its field work and initial data processing. A more detailed report of the survey's sampling methods, field work procedures, field outcomes, and estimating procedures is in preparation.

Sampling Objectives and Constraints

From a sampling perspective, the survey had four primary objectives.

The first was to provide citywide estimates of the numbers and proportions of eleven and twelve year old children (sixth grade) attending public school who participated in various activities and programs outside of school. Separate estimates also were required by sex, ethnicity, family income, and family structure.

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[1] By William L. Nicholls, Associate Director, Survey Research Center, University of California, Berkeley. NB: Dr. Nicholls was primarily responsible for designing the survey sample.

The second objective was to make possible comparisons between children residing in geographic areas representing at least three different socio-economic levels. Since Oakland's grade school children disproportionately reside in low income neighborhoods, this would require proportional over-sampling of children from high and middle income areas and a corresponding undersampling of children from low income areas.

The third objective was to facilitate analyses taking local neighborhood differences into account, such as the number and type of public facilities and programs they offered, the constraints topography and land use placed on children's activities, the availability of public transportation, and the neighborhood social character. This objective suggested a cluster sample design with schools or neighborhoods serving as the primary sampling units.

The fourth objective was to select the sample in such a way that standard errors and confidence limits could be constructed for the estimates obtained. To meet this objective, schools or neighborhoods would be drawn in pairs to permit the paired primaries approach to the calculation of sampling variances.

Resources available for the study placed two major constraints on the sample design. First, funding for the survey field work precluded a total sample size much larger than 750 completed interviews. Second, to gather neighborhood information on local programs and facilities for children and use, etc., field workers would make extended studies of each neighborhood selected. Resources available for this purpose could not accommodate more than approximately 20 neighborhoods.

The Study Population

During the spring of 1976, approximately 4,100 sixth grade students were enrolled in the Oakland Public Schools. They were distributed across 58 neighborhood elementary schools ranging in enrollment from about a dozen to almost 200 sixth grade students.

Like most central city schools, children attending Oakland's Public Schools are predominantly members of ethnic minorities. In 1974-75, 65.1 percent of Oakland's elementary school students were Black, 7.5 percent were Spanish-surname, 5.2 percent were Asian-American, and 2.7 percent were members of other ethnic minorities. Only a fifth (19.6 percent) were other white or "Anglo." Many of the city's grade school children also reside in economically underprivileged homes. In 1974-75, almost two-fifths (38.3 percent) of the grade school children lived in homes supported by Aid to Families with Dependent Children (AFDC).

Oakland's public elementary schools are essentially neighborhood schools. They draw the overwhelming proportion of their students from their officially designated elementary school attendance areas. As a result, the composition of their student bodies reflects the characteristics of the neighborhoods in which they are located. For example, approximately a fifth of the sixth grade students attend schools where less than 10 percent of the students are from AFDC families, while a third of the students attend schools where the majority of the students are from AFDC homes. The schools also vary greatly in ethnic composition, and include schools which are predominantly white, predominantly Black, and predominantly Asian-American as well as schools with heterogeneous ethnic compositions.

While the predominantly Black schools also tend to be schools with large proportions of AFDC children, there are major exceptions. Oakland has a large and growing middle-class Black population which is reflected in schools with large proportions of Black children of middle socio-economic level. Middle-class Black children were of special interest to the study since it was desired to know whether their activities and interests more closely paralleled those of middle class white children or poorer Black children.

Not all of the sixth grade children attending Oakland's Public Schools reside in the City of Oakland. Approximately 2 percent have officially recorded home addresses outside the City. Some are the children of teachers in the Oakland Public Schools while others reflect exchange arrangements with adjacent cities for the convenience of children living near the city boundaries. It is suspected that an even larger proportion actually live outside the city but have filed fictitious or unverifiable addresses with the Oakland schools. Under similar arrangements an unknown number of children residing in Oakland attend public schools in Berkeley, Emeryville, and other nearby cities.

For the purposes of this study, the survey population was defined as children who: (1) were enrolled in the sixth grade of the Oakland Public Schools in January of 1976; (2) resided in the City of Oakland; and (3) had not moved from the City or to another elementary school attendance area between the time of sample selection and the completion of the field work. By these criteria, approximately 3,950 of the 4,100 enrolled sixth grade students were eligible for the study population.

Sampling Methods

A brief overview of the survey's sampling methods will be presented first with a minimum of technical detail. A more complete description of each step in the sampling process follows.

Overview

As a first step in the sampling process, Oakland's public elementary schools were divided into high, medium, and low socioeconomic groupings (or master strata) by the percent of their children from AFDC homes. By the method used, about 20 percent of the sixth graders attended high SES schools, about 20 percent attended medium SES schools, while 60 percent attended low SES schools.

To insure that a sufficiently large number of students would be interviewed at each SES level to make reliable statistical comparison possible, sixth graders from high and medium SES schools were sampled at a higher rate than those from low SES schools. Specifically, 30 percent of the sample was drawn from students in high SES schools, 30 percent from those in medium SES schools, and 40 percent from low SES schools. This meant that students from high and medium SES schools had a chance of about 3 in 10 of being interviewed while those in low SES schools had a chance of approximately 1 in 9.

Within each SES stratum, sixth graders were selected by a two-stage process. First, a sample of schools was drawn by probability methods. Then, the school records were consulted to obtain the names, addresses, and telephone numbers of its sixth grade students. The sampling procedures were designed to provide from 35 to 41 completed interviews per sampled school.

A total of about 20 schools were chosen, about a third of the elementary schools in the city. These included six schools each of high and medium SES and eight of low SES. Interviews were completed with approximately 19.4 percent of the sixth grade students eligible for the study.

Stratification

To permit sufficient time for the prior approval of the principal of each sampled school, the sample of schools was selected before the start of the 1975-76 school year. In designing the sample, it was therefore necessary to rely on stratification criteria from the previous school year and on projected sixth grade enrollments for 1975-76.

Several stratification criteria were considered in developing homogeneous strata of schools. These included: (1) ethnic composition; (2) percent of children from AFDC families as of January 1976; (3) neighborhood family income estimated from 1970 U.S. Census figures; and (4) CTSB standardized reading test scores. The percent of children from AFDC families was selected as a better measure of socioeconomic status than Census-based family income both because it was more current and because it referred to the families of the school children themselves rather than to all families in the neighborhood, including those without children. Average reading scores were eliminated as a stratification criterion when they were found to be closely correlated across schools with the percent of children from AFDC homes. This analysis indicated, however, that average reading scores reached a fairly stable low plateau when the percent of children from AFDC homes reached about 35 to 40 percent. This suggested an approximate but meaningful cutting point to delineate low socioeconomic neighborhoods.

Three socioeconomic master strata were defined by the proportions of children from AFDC homes. High SES school attendance areas were defined as those with less than 10 percent of their grade school children from AFDC homes; medium SES areas were defined as those with 10.0 to 37.6 percent of children from AFDC homes; and low SES neighborhoods were defined as those with 37.6 percent or more AFDC students. The 37.6 percent cutting point was somewhat arbitrary and selected in part for convenient stratum sizes.

To avoid selection of schools with too few sixth grade students for the next stage of sampling, schools with a projected sixth grade enrollment of less than 40 students were combined with adjacent schools of similar characteristics. These combined schools were then treated as single schools in further stratification and sampling. This reduced the total number of possible primary sampling units from 58 to 52.

The schools within each SES master stratum were then divided into three or four individual strata by a combination of ethnic and socioeconomic criteria. These criteria, which are summarized in Table 1, were varied from one master stratum to the next to accommodate their predominant characteristics and to provide individual strata of approximately equal numbers of projected sixth grade students within each master stratum for better control of sample size.

To illustrate the process, the high SES master stratum was divided into three individual strata of approximately 250 to 300 students each. Stratum 1 consists of schools with less than 2 percent of the student body from AFDC homes. These schools also happened to have student bodies which

TABLE 1

SAMPLING STRATA

Master Stratum	Stratum	Stratification Criteria			Population		Target Sample	
		Percent AFDC children	Percent Anglo-Asian	Percent Black	Schools[a]	Sixth grade students[b]	Schools[a]	Sixth grade students
I (High SES)	1	0.0-1.9	(>80)[c]	d	4 (4)	274	2 (2)	77
	2	2.0-9.9	>75	d	5 (4)	255	3 (2)	72
	3	2.0-9.9	<75	d	5 (4)	265	2 (2)	74
	Total	0.0-9.9	d	d	14 (12)	794	7 (6)	223
II (Medium SES)	4	(17.2-28.4)[c]	>50	d	4 (4)	266	2 (2)	75
	5	19.9-30.9	<50	d	5 (4)	276	3 (2)	77
	6	31.0-37.6	<50	d	5 (5)[e]	266	2 (2)	75
	Total	10.0-37.6	d	d	14 (13)	808	7 (6)	227
III (Low SES)	7	(37.6-52.4)[c]	d	<80	8 (8)[e]	663	2 (2)	74
	8	43.6-48.4	d	>80	7 (6)	610	2 (2)	71
	9	48.5-54.4	d	>80	7 (7)	697	2 (2)	82
	10	54.5-99.9	d	>80	9 (7)	627	2 (2)	73
	Total	37.6-99.9	d	d	31 (28)	2,567	8 (8)	300
Grand Total		d	d	d	58 (52)	4,169	22 (20)	750

[a]The first figure is the total number of schools with sixth grade students. The second figure in parentheses is the reduced number of schools after those with less than 40 sixth grade students have been combined with adjacent schools.

[b]The numbers of sixth grade students reported here are projections for 1975-76 prepared in the summer of 1976.

[c]Figures in parentheses were not used to define strata but provide supplementary information about the strata.

[d]Not applicable or not a criterion for this stratum or master stratum.

[e]One large school was split between strata 6 and 7 and is reported in the count of schools for both of these strata. This school was not selected in sample for either stratum.

were 80 percent or more Anglo or Asian-American. Stratum 2 consists of schools with 2.0 to 9.9 percent AFDC children and 75 percent or more Anglo-Asian student bodies. Stratum 3 includes schools with the same AFDC range but with less than 75 percent Anglo-Asian students.

The medium and low SES master strata also employed finer breakdowns of the percent of AFDC children for further stratification but varied in their ethnic criteria. For the medium SES master stratum, school compositions of more or less than 50 percent Anglo-Asian were used, while for the low SES master stratum the criterion was more or less than 80 percent Black. It should be emphasized that only the three master strata are intended to form a strict hierarchy along a single continuum. The individual strata within them are meant only to form groupings of schools which are relatively homogeneous in ethnicity and socioeconomic status.

Selection of Schools and Interview Targets

From each of the ten final strata, two schools were selected without replacement and with probability proportionate to their projected numbers of sixth grade students in 1975-76. When the selection was a combination of two schools treated jointly to insure at least 40 sixth graders between them, both schools were included in the sample. This occurred twice, making a total of 22 schools representing 20 selections.

A target number of completed interviews was calculated for each school to keep the sample self-weighting within master strata. For combined schools, the target was allocated between them by their relative projected enrollments. Stratum (rather than school) targets are shown in the last column of Table 1.

The school target for each school was one-half its stratum target, rounded to the nearest whole number when necessary.

The principal of each selected school was contacted to secure his or her approval of the study before the next stage of sampling was undertaken. This approval was obtained for 21 of the 22 schools included in the sample. The principal of the remaining school asked that it be dropped from the sample in the belief that the survey might contribute to current conflicts between staff and parents. This one school was replaced by another from the same stratum.

Selection of Students

Students were selected from each sampled school by simple random sampling from the roster of sixth grade students enrolled in February, 1976. Several groups of students were excluded from the survey at this point.

The first were students with officially recorded addresses outside the City of Oakland and who therefore fell outside the definition of the study population. In total, this amounted to about 2 percent of the sixth grade enrollments.

The second were students excluded because they presented special interviewing problems. For example, it was decided that no more than one child would be interviewed in each household. Consequently, when twins were encountered, only one was considered eligible for an interview. A few additional students were omitted because they did not speak English or Spanish, because they had previously been interviewed in pretests, or because their parents had previously reviewed the interview forms. In total, these exclusions represented about 1 percent of the sixth grade enrollments, of which two-thirds were exclusions of the second of a set of twins.

The third group, comprising about 5 percent of the sixth grade enrollments were students with no current home address or telephone number in their school records. In some cases, the school records contained an entry that this missing information was not to be pursued further, and no attempts were made to obtain such information if it was absent from the school records. It may be suspected that at least some of these students resided outside of Oakland or in attendance areas for schools other than the one they were attending, but this is only a speculation. It is known that these losses were spread rather evenly over all three SES master strata.

To allow for refusals and other field losses, each school was oversampled above its target by about 25 percent. The resulting lists of sampled students were then maintained in random order and the excess cases assigned for interviews only to replace refused interviews and other field losses as they occurred. Halfway through the field work, the sampling targets were revised for each school to take account of discrepancies between the projected and actual 1975-76 enrollments and to make adjustments for ineligible respondents identified through school records and field contacts. In virtually all schools, the revised targets of completed interviews were closely approximated or exceeded.

Field Work Methods

Since the respondents were young children, it was thought advisable to have an interviewing staff consisting of young women. It was felt that they would appear less threatening to respondents than either male interviewers or older women. Since the majority of child respondents were

Black, special efforts also were made to employ Black interviewers. To meet these goals and to obtain interviewers skilled in relating to children, it was necessary to hire and train a substantial number of new interviewers.

A total of 22 interviewers were employed for this study. Each attended a two-to-four day training session on the survey instrument and on survey interviewing techniques and completed at least two practice interviews before receiving a first assignment. The length of training varied with the interviewer's prior experience.

All interviews were completed in the respondents' homes. An advance letter was first mailed to the mother or guardian of each sampled child which described the purposes of the survey, explained that mother and child would each receive $2.50 for their participation, and asked for their cooperation. The interviewer then telephoned the home to arrange an appointment for the interview. If the home did not have a telephone, a personal visit was made for this purpose.

In most cases, participation was readily obtained. The honorarium for the child, which was paid in cash at the completion of the interview, appears to have been quite important in the favorable reception. Parents seemed reluctant to deny their children the opportunity to earn this small sum, while awareness of the procedure quickly spread throughout sixth grade classes of sampled schools, often resulting in children's eagerness to be interviewed even before the interviewer telephoned. The honorarium for the parent avoided the awkward situation of paying the child for the interview without providing the parent with a similar reward for completing the parent questionnaire.

When the interviewer arrived at the home, (the parent was asked to sign a human subjects release form,) and a household enumeration was completed with the parent. The parent was then asked to complete a lengthy questionnaire while the child was being interviewed. This had the double advantage of securing both parent and child information concurrently and of making possible a more confidential interview with the child while the parent was occupied with the questionnaire.

The first interviews were completed on April 8, 1976 and the last on June 23, 1976, approximately two weeks after the close of school.[1/]

Field Outcomes

Response Rates

During the course of the field work, a few additional children were identified who were ineligible for an interview by the definition of the study population. These included children whose actual place of residence was outside of Oakland or who had moved from Oakland or to another school prior to the intended date of interview.

Interviews were completed with 87.2 percent of the remaining children who were sampled for the survey and not known to be ineligible. As shown in Table 2, the parents of 10.6 percent of sampled children declined to permit an interview, 1.5 percent could not be found at home in repeated calls, and 0.7 percent were lost for other reasons, such as serious illness of the parent or child or the inability to complete a reinterview.

[1/] Verification of the fieldwork indicated the necessity for partial or total reinterviews with approximately 9 percent of the sample during the summer months.

TABLE 2

FIELD OUTCOMES BY MASTER STRATUM

Interview Outcome	Master Stratum						City Total	
	I (High SES)		II (Middle SES)		III (Low SES)			
	Numb.	Prct.	Numb.	Prct.	Numb.	Prct.	Numb.	Prct.
Total sample.....	251	100.0	276	100.0	366	100.0	893	100.0
Ineligible for study[a]..	2	0.8	8	2.9	7	1.9	17	1.7
Eligible for study....	249	99.2	268	97.1	359	98.1	876	98.3
Total eligible.....	249	100.0	268	100.0	359	100.0	876	100.0
Completed interview...	233	89.6	236	88.1	305	85.0	764	87.2
Refused interview.....	22	8.8	29	10.8	42	11.7	93	10.6
Never at [illegible].....	4	1.6	3	1.1	6	1.7	13	1.5
Inaccess[illegible]nd other[b]	-	-	-	-	6	1.6	6	0.7

[a]Includes children living outside of Oakland or moving from Oakland or to another school prior to the intended date of interview. Also included are two families who moved to an unlocatable new address.

[b]Includes one family where the child respondent was too ill to be interviewed, one family where the parent was too ill to participate, and four families scheduled for reinterviews but who moved from Oakland before they could be reached.

As shown in Table 3, response rates varied only slightly from school to school and from stratum to stratum. At least 80 percent of the sampled eligible students were interviewed at each sampled school, while the stratum response rates varied only from 83.1 to 92.6 percent. The response rates of boys and girls were virtually identical, 87.4 and 87.0 percent, respectively.

There is some evidence that Black families were somewhat less likely to participate in the study than others. Since race and ethnicity were not included in the school records and could not be determined with certainty if the home was not visited, the ethnicity of those never reached is not known. However, among those visited only 3.1 percent of the Anglo families and 2.8 percent of the Mexican-American families declined to be interviewed as contrasted with 7.9 percent of the Black families. Nevertheless, the response rate even in predominantly Black areas is sufficiently high that this minor bias should be negligible.

Race Matching

One field objective of the survey was to have children interviewed by interviewers of their own race whenever possible. This goal could not be met in all cases, however. Although the interviewing staff included both Black and white interviewers and one Chinese-American staff member who assisted with interviews at Chinese-American homes, the staff was not sufficiently large to include the full range of ethnic groups sampled. In addition, since the family's race or ethnicity was not known with certainty in advance, race matching could only be approximated by assigning white interviewers to predominantly white areas and Black interviewers to

TABLE 3

COMPLETED INTERVIEWS BY SCHOOL AND STRATUM

Master Stratum	Stratum	School	Eligible Sample	Completed Interviews		Stratum Response Rate
				Number	Percent of eligible	
I (High SES)	1	1	41	37	90.2%	89.3%
		2	43	38	88.4%	
	2	1	39	35	89.7%	92.6%
		2	42	40	95.2%	
	3	1	48	42	87.5%	86.9%
		2	36	31	86.1%	
	Total		249	223	89.6%	89.6%
II (Medium SES)	4	1	41	36	87.8%	88.0%
		2	42	37	88.1%	
	5	1	46	43	93.5%	87.0%
		2	46	37	80.4%	
	6	1	48	44	91.7%	89.2%
		2	45	39	86.7%	
	Total		268	236	88.1%	88.1%
III (Low SES)	7	1	42	37	88.1%	86.5%
		2	54	46	85.2%	
	8	1	48	41	85.4%	83.1%
		2	35	28	80.0%	
	9	1	47	40	85.1%	86.5%
		2	42	37	88.1%	
	10	1	42	36	85.7%	83.5%
		2	49	40	81.6%	
	Total		359	305	85.0%	85.0%
Grand Total....			876	764	87.2%	87.2%

predominantly Black areas. When they encountered families of a different race in their assignments, they were instructed to complete those interviews. The alternative of terminating such interviews early and sending another interviewer of the matching race to complete them often proves embarrassing for all parties and generally does not seem advisable.

Table 4 shows the proportion of children of each ethnic group interviewed by Black and by white interviewers. For example, 89 percent of the white children were interviewed by white interviewers while 72 percent of the Black children were interviewed by Black interviewers. The residual percentages of cross-race interviewing generally represent white children residing in predominantly Black areas and vice versa.

Virtually all the Asian-American children were interviewed by white interviewers, often accompanied by the Chinese-American staff member who interpreted for the parent when necessary. About half the Mexican-American and other Spanish-American respondents were interviewed by white interviewers and half by Black. Again, the race of the interviewer depended primarily on whether the neighborhood to which she was assigned was predominantly white or Black.

Weighting

Since children were sampled from the low SES master stratum at a lower rate than children from the high and medium SES master stratum, the sample results must be appropriately weighted to provide city-wide estimates. Appropriate weights have been prepared which compensate for the disproportionate sampling, for deviations of projected from actual

TABLE 4

RACE OF INTERVIEWER BY ETHNICITY OF CHILD RESPONDENT

Ethnicity of Child Respondent	Race of Interviewer		Total = 100.0%
	White	Black	
White.....	88.6%	11.4%	(185)
Black.....	27.8%	72.2%	(457)
Asian-American.....	97.1%	2.8%	(70)
Mexican-American/Spanish-Amer..	51.3%	48.7%	(39)
Other.....	23.1%	76.9%	(13)
Total.....	50.0%	50.0%	(764)

school enrollments, for losses through ineligibility, and for the small variations in response rate from school to school. The details of their construction will be provided in the full description of the survey's sampling, field work, and estimating procedures which is in preparation.

Standard Errors and Confidence Intervals

Since the survey employed disproportionately stratified cluster sampling, the standard formulas for the calculation of standard errors and confidence intervals of simply random samples do not apply. The sample design of two primary sampling units (schools) from each stratum permits the estimation of standard errors by the paired primaries methods with existing computer programs. While the calculations have not yet been undertaken, preliminary figures prepared during sample design suggest that weighted city-wide estimates should have approximately the same precision (i.e. standard errors) as a simple random sample of the same number of cases. This would not necessarily be true, however, of estimates for individual master strata or of other estimates obtained by cross-tabulations with such variables as race or family income.

Summary and Conclusions

In summary, the survey's sampling and field work objectives were fully met. More than 750 Oakland sixth grade children were interviewed with the unusually high completion rate of 87.2 percent of the sampled, eligible cases. In addition, from evidence to date, the interview data appears to be of generally high quality, providing detailed information

about children's participation in organized activities as well as about their structuring and use of time at home.

When appropriately weighted, the sample data will provide estimates of the study population with calculable confidence intervals. The sample also will permit meaningful comparisons between the activities of children residing in areas of three different economic levels and may be used to examine neighborhood differences among the 20 elementary school attendance areas sampled for the study. Moreover, since response rates of 80 percent or better were obtained for both sexes, all three socioeconomic areas, and all 20 sampled schools, sampling biases (if any) should be negligible.

APPENDIX B

Family Life and the Inequality Controversy

A Selective Review

The past decade's debate on issues of educational opportunity has highlighted the paucity of data on other aspects of children's life circumstances. The liberal hope has been that social justice could be promoted by informed changes in educational policy. Thus the focus on reform and redirection of the schools. But what began as an empirical question about the degree of inequality in educational opportunity and the permeability of the occupational structure has become a pressing political and moral concern. The emphasis has shifted from measuring inequality of educational opportunity and intergenerational mobility to much more complex questions of inequality of result. The issue of inequality has evolved from a concern with equalizing life chances to a concern with equalizing life circumstances. The spotlight has shifted in a decade and one-half, from the school to the family, from inequality of opportunity to inequality of outcomes.

It seems, however, that as a society we are not certain what it is we want to equalize. What would satisfy some is a kind of epidemiological equity. That is, the proportion of, for example, Black Americans who graduate from high school, enter college, become brain surgeons, lawyers, and accountants ought to equal the proportion of whites occupying these roles and statuses. In this view the important thing is to equalize the distribution of status among groups while ignoring vast inequalities within groups. For others this is not enough. What is essential is changing the

distribution of material rewards and life circumstances, as well as life chances. In this view, income re-distribution is essential to any egalitarian reform strategy. Underlying this argument is the belief that equalizing income will equalize other sorts of things as well. It assumes that SES of family of origin has such an important effect on educational attainment and adult status, that if income is equalized in the families of origin we will equalize opportunities in the next generation. If this were not the case--if we maintain the existing relationship between social class of family of origin and the child's opportunity structure--we would have done little to narrow the inequality gap.

But measuirng the conditions of life, especially the conditions of the lives of children, is outside the frame of the inequality research. Taken as a whole the debate tells us little about the role of the family in the process of achievement, even though family factors emerge as salient variables in virtually every study. In particular, we know little about how the conditions of children's lives now affect both their own life chances as well as their prospects as parents of the next generation. The family has been used to explain important social facts primarily by default, when other sorts of explanations have failed. There is surprisingly little evidence about what it is that families do that does affect the life chances of children.

There are several reasons why the inequality literature is weak on family life relationships. First, the literature as a whole is oriented toward questions of future accomplishment rather than the present conditions. Second, the concept of inequality itself serves as a proxy for ambiguously

defined notions of social standing and life circumstance.. Third, the real complexity and variety of family backgrounds is lost in the empirical analyses. Lower status families are less successful than high status families in preparing their children for school life. Yet we know that many low status children are successful in their school careers. The amount of variance in achievement explained by family status, we would argue, is less important to know, than what it is about some low status families that helps them to prepare their children for school life and school careers. Fourth, the inequality literature looks narrowly at school achievement rather than achievement orientation. This is not to argue that in our achievement oriented society what is needed is still greater pressure to achieve. But rather it is to suggest that factors which affect school achievement affect the achievement orientation of both the family and the child outside of school. To describe the relationship between schooling and family life we need to know more about processes which go on outside the classroom that are likely to affect achievement orientation.

The empirical work relevant to the inequality controversy begins as a separable literature, one with a coherent method and model formulated in Blau and Duncan's American Occupational Structure. This tradition culminates a decade later with Bowles and Gintis' attack on American economic structure as a whole in Schooling in Capitalist Society. What unified this literature is agreement on a particular methodology: focus on a small number of highly quantifiable variables, and equally important, consensus on what Jerome Ravitz would call the "standardized facts." What distinguishes different aspects of the research is 1) the time frame, intergenerational versus

intragenerational; 2) the relative emphasis on empirical versus interpretive work; 3) the level of analysis--individuals, schools, etc. and 4) the interpretive model into which the empirical work is fit.

Several other types of studies comprise the inequality literature's tangential assessment of the impact of family life on life chances:

1. The status attainment literature which looks at intergenerational effects on occupational status, especially the effect of family social characteristics on educational attainment and adult status.
2. The school resource literature which focuses on schooling in a single cohort and explores the role of a variety of factors including family background and ability in school achievement.
3. The interpretive literature which builds on 1 and 2.

Taking these literatures together the argument goes, in summary, that the family of origin has an important effect on educational attainment. Where this effect is negative, schooling does not appear to have any substantial impact on overcoming home environment. Therefore, if we are interested in particular kinds of reduction in inequality, e.g. reducing economic inequality, those reductions must be achieved directly, i.e., not through schooling.

The inequality literature has concentrated on variables which are easily measurable, widely available over time and useful in simplified quantitative analysis. At the individual level of analysis several questions have organized much of this work:

1. What is the relationship between family socioeconomic status and the education, occupation and income of the child?

2. What is the relationship between the amount, kind, and quality of an individual's education and his or her occupation and income?

3. What is the relationship between occupation and income?

4. What is the relationship between the kind and quality of a child's education and his or her achievement?

5. What is the relationship between ability and achievement?

6. How are school resources distributed across areas of the country; and how are they distributed by the demographic characteristics of social groups?

7. What is the relationship between peer values, background and achievement?

Several "systems" related questions run through this literature.

1. Have successive cohorts received more education?

2. Have income disparities increased or decreased over time?

3. What is the relationship between increasing educational attainment and income equality?

Other questions, that are principally political, have followed.

1. Who is accountable for the factors we see operating in the system: the family, the schools, the economic system?

2. What should the relationship be between work and income? Between education and work?

3. How much disparity between groups and individual in educational attainment, occupational status and income is too much?

Three studies, in particular, have focused the issues and fueled the inequality controversy. They are reviewed briefly below: 1) Duncan's work on status attainment; 2) Coleman's EEO study; and 3) Jencks' research on income inequality.

Status Attainment

The status attainment literature has been especially concerned with the characteristics of the family of origin. The argument is as follows: the single most important factor determining adult socioeconomic status is the number of years of schooling an individual receives; the single most important factor determining the number of years of schooling is the socioeconomic status of the family of origin. This sort of analysis depends on a few simple variables to measure family background: father's education, father's occupation, family stability, and size of family. Duncan and Duncan admit that "the education and the number of siblings offer a crude but ... comprehensive description of the SES of a man's family of origin." The model assumes that these variables have the same cultural meaning at different periods in history, in cities and in small towns. More important, it assumes that the same structural processes can be inferred from aggregated individual characteristics over time. For the most part, inequality in this litereature has come to mean statistical inequalities on such variables as income, educational attainment, and quality of education. Correlation coefficients showing the relationship between these variables act as quasi-theories, proxies for an explanation of some social process. Thus, the correlation between father's and son's status which stands at .4 is supposed to explain something about the dynamic of social mobility.

While outlining in broad form the relationship between parental status and achieved status for the society as a whole, this increasingly large literature contributes only modestly to our understanding of why it is that children from lower status homes are less likely to like schools, to do well in schools, and therfore are less likely to achieve a gain in adult status over the status of the family of origin. Two factors stand out which tell us something about conditions of growingup that appear to affect later achievement: the size of the family of origin and the stability (as measured by intactness) of the family of origin. A child appears to be "handicapped" if he or she comes from a family of origin that is not intact and if he or she comes from a large family.

Duncan and Duncan (1969) argue that growing up in an intact family increases the probability that a man 1) will have a relatively high status occupation; 2) will have a higher mean level of educational attainment; and 3) will more effectively translate educational attainment into occupational success. While this is true for blacks as well as whites the measurement problems for blacks are considerable. The following are noteworthy: 1) Only men living with their wives are included in their analysis (depending on the cohort this is only about 60-70% of black men); 2) Mother's occupation is difficult to measure, and reporting may not be at all reliable.

Furthermore, it is easy to lose sight of the relative importance of separate variables. For example, in one table Duncan and Duncan (1969) report mean SES scores for men, married and living with their wives by selected characteristics. The net "handicap" of growing up in a home with a female head is the difference between 21.80 and 17.93 scale points. The "handicap" of being black is the difference between 41.52 and 21.80 scale points.

The size of the family of origin has considerable influence on both the educational attainment and the occupational status of sons. Blau and Duncan report, "the average education of men with three or fewer siblings is high school graduation, whereas that of men from larger families is nearly two years less." Controlling for SES of the family of origin, differences in educational attainment persist, although the relationship is attenuated.

Achieved occupational status is also affected by the number of siblings in the family of origin. The differences in status scores between men from small and men from large families are as great as ten points (scores ranges from 0 to 96).

The EEO Study

The EEO study which concentrated heavily on school resources (inputs) is especially important to the inequality controversy because it returned the burden for educational achievement to the family. The EEO study looked in cross-section at the relationship between school resources and achievement. Expecting to find that school resources were unequally distributed by geography and social class, the measurement of the school factors was much more rigorous than the family factors. The Coleman study found that

1) Blacks and whites have approximately equal school facilities in the U.S.
2) Compared to family resources school resources do not fundamentally affect school achievement.

Establishing the unique effect on student achievement of both family resources and school resources has provoked a substantial methodological and substantive controversy which, with present data, is essentially unresolvable. In the initial study the joint effect of family background and school

resources on variance in achievement was assumed to be SES based. School resources were assumed to account for only that part of the variance in achievement which could not be accounted for by family effects. Subsequent reanalyses have been unsuccessful in partitioning the large portion of the variance in achievement which is attributed to and shared by both family and school resource variables.

Much of the methodological controversy over the magnitude of the separate effects of school resources on achievement is less relevant to our study than 1) the ascription to family effects of effects jointly measured by SES and school effects; and 2) the inadequacy of the non-school environment variables. William Spady in a comprehensive review of the "input-output" studies argues that they suffer from having to use "crude measures of non-school environments, current school resources and current achievement."

Family effects were measured in a rather simple way in the EEO study. They consisted of:

1) Student perceptions of
   a. Family attitudes toward education.
   b. Two important social and economic characteristics of the family--parental education and occupation.
2) Family structure--a measure of family stability while growing up.
3) Household items owned by the family.

While the non-response for family structure and household items was low, the non-response for parent's education and father's occupation was almost 30%, for example, for 6th graders and 50% for 3rd graders.

The point is not that family effects do not account, substantially, for level of achievement or that school resources cannot be better allocated to maximize educational opportunity, but rather that little can be learned from this literature about the relationship between family life and school achievement, or the strength of the relationship.

Income Inequality

A third major study important to an understanding of family life and inequality is Jencks' review and reanalysis of existing data. Here the focus is on economic success rather than the attainment of status or educational achievement. Jencks, et al. argue that "neither family background, cognitive skill, educational attainment, nor occupational status explain much of the variations in men's incomes." They do not, however, dispute the importance of family background in explaining educational attainment and the importance of educational attainment in explaining occupational status. In their view, the way to equalize life chances is to reduce directly the inequalities which create unequal opportunities. This they argue may well be a by-product of equalizing incomes.

This study seriously reifies the importance of these easily measurable demographic variables in accounting for certain social processes. We know that SES of family origin is fairly highly correlated with educational attainment but this does not mean that we know what it is about high status that causes those who come from relatively high status homes to "do better" than those who come from low status homes. While admitting

this, Jencks does not call for further research on the nature of family life, school resources and achievement as a first step in a major reorientation of public policy. He calls simply for a redistribution of income.

Let us assume that we cannot equalize certain outcomes, especially income, by increasing educational opportunity. One solution to a part of the equality problem is to equalize income directly. If that is the sole objective, the task is fairly straightforward. But we cannot assume that at the same time we will be equalizing access to opportunities since access to opportunities depends as much on what you know as what you have. Large numbers of poor children (even if proportionately fewer) have always equaled or exceeded the attainment of adult status of middle or upper-class children. Thus, it is not poverty per se that accounts for differential achievement but either some correlate of low income or some interaction between income and other variables about which we know little.

Our problem with the inequality literature is that it ends where our research would argue it should begin. We know that certain summary demographic variables have powerful effects on life chances. We do not really know why. In another context, Robin Room (1974) has argued perceptively for the necessity of bringing content to variables whose meaning is assumed:

> The variables included under this rubric traditionally appear in broad differentiations of the general population: differentiations in terms of life cycle, such as age and family status; in terms of ecological variations, such as region and urbanization; in terms of cultural variations, such as ethnicity and religion; and in terms of general socioeconomic status.
>
> These variables or their analogues are the minimum stock-in-trade of any descriptive social survey. Most such surveys begin, and many end, with a series of cross-tabulations of

> demographic variables against the variable which is the subject of the study. Why such tabulations should be of interest is usually considered to be sufficiently self-evident as to merit no discussion: that many of the cross-tabulations commonly show large associations is considered to be reason enough for the undertaking.
>
> Much of the importance of these variables is that they in fact measure major bases of social differentiation without reference to the actual behavior of the individual being classified. ... Unlike many sociological and psychological variables, they are differentiations which ordinar people recognize and use in everyday life. They make a measurable difference in innumerable life-chances — ...
>
> While all of this enhances the importance of the variables, it tends to make their analytical status ambiguous. Thus the full "meaning" of a finding of association between social status and mental health, for instance, is a far more implicative but far less determinable issue than the fact that there is an association.

Hopefully we can explicate some of these processes with the rich data base provided by the two surveys.

APPENDIX C

Instruments

There are two instruments--parent's questionnaire and child's interview schedule. The parent's questionnaire was self-administered. It took an average of 45 minutes to one hour to complete. There were two versions, one for parents of boy respondents (attached), a second for parents of girl respondents. The only difference was the gender of each question (son/daughter, his/her, etc.). If parents had difficulty reading the questionnaire, all items were interviewed. If parents did not speak English, a translator accompanied the interviewer to the home.

While the parents filled out the questionnaires, the children were interviewed, whenever possible in another room (privacy was considered to be crucial). Interviews took one hour to one hour and a quarter. Details of the interview process itself were described above in Appendix A.

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